Operator's Manual

DANGER!

Si No Lee Ingles, Pida Ayuda a Alguien Que Se Lo Lea
Para Que le Traduzca Las Medidas de Seguridad

Model: SP-52
Part Number: PT120531
Rev 2

Tiger Corporation
3301 N Louise Ave
Sioux Falls, SD
57107

800-843-6849
605-336-7900

The Limited Warranty provided by Tiger Corporation set out in this Manual is in lieu of all other remedies or warranties, expressed or implied, arising by law or otherwise, including fitness for a particular purpose or merchantability. Progressive Turf Equipment Inc. and Tiger Corporation expressly disclaim liability for indirect, special, incidental, or consequential damages, lost profit, loss of business, loss of goodwill, loss of reputation, punitive, exemplary or any other damage, cost, expense or loss of any kind. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the foregoing limitation or exclusion may not apply to you.

Contents

Introduction

Thank you for purchasing a Slope–Pro™ machine. This product is designed and manufactured to allow safe and productive mowing in difficult conditions. A well-maintained machine will provide years of reliable service.

Foreword

This is the Operator’s Manual for the Slope–Pro™ machine. Keep it with the machine at all times. This manual is intended as a guide to the use and maintenance of the machine, so before you operate this machine, study this manual carefully.

Replace this manual immediately if it becomes lost.

This manual is not considered all-inclusive, so for further information on specific components, e.g. engine, remote control etc., refer to the respective documents included with the manual set for this machine.

The Slope–Pro™ machine is a fully remote-controlled, zero-turn, tracked machine designed to tackle difficult locations minimizing the risks to the operator, equipment, and terrain. It employs a gasoline powered EFI engine to power the hydrostatic drive system and mower blades. It is a significant product innovation emphasizing operator safety and productivity in demanding mowing applications.

Features

- Operating range up to 300 ft from remote control – recommended maximum
- Zero-turn capability
- Operates on inclines up to 50º
- Fuel capacity for all-day operation
- Reduced risk of injury
- No emissions around operator
- No vibrations to hands or body

Applications

The Slope–Pro™ machine is ideal for clearing low-lying brush and weeds from:

- Roads and highways
- Parklands and estates
- Reservoir and canal embankments
- Landfill Sites
- Railway embankments
- Military bases / restricted environments

OSHA Training Requirements (USA)

The following training requirements have been taken from Title 29, Code of Federal Regulations Part 1928.57 (a)(6). www.osha.gov

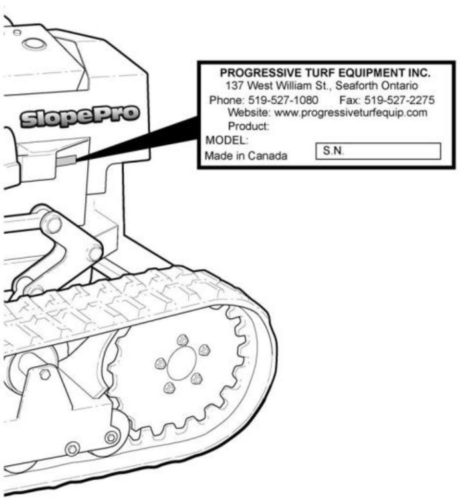
Operator Instructions. At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all covered equipment with which he is or will be involved, including at least the following safe operating practices.

In other jurisdictions

It is good practice, following the initial instruction and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all covered equipment with which he is or will be involved, including at least the following safe operating practices.

Items Included with the Slope–Pro™ machine

- Remote control / transmitter
- Manual for remote control / transmitter
- Battery charger for remote control / transmitter
- Slope–Pro™ machine Operator's Manual
- Engine manual
- Machine parts book
- Tool kit (1 ½" box end wrench, 1 ½" socket – ½" drive, blade balancer tool)
- Brake release tools (two of each: tube, bolt and nut)



Serial Number Location

The serial number plate for the machine is located on the left-hand rear frame.

For quick reference, record the following information:

Model: ______________________________

Serial Number: ______________________________

Date purchased: ______________________________

Always state this information when contacting your selling dealer and when ordering spare parts.

Parts Information

Use only Genuine Original Equipment Manufacturers (O.E.M.) replacement parts. The use of "will fit" parts may reduce machine performance, void machine warranties and present a safety hazard. Use Genuine OEM parts.

WARNING!

USE ONLY GENUINE
O. E. M. REPLACEMENT PARTS
– ESPECIALLY CRITICAL ON THE CUTTING BLADES –

California Proposition 65 Warning
Engine exhaust from this product contains chemicals known to State of California to cause cancer, birth defects, or other reproductive harm.

Unauthorized Modification

A) Modifications to the original design of the Slope–Pro™ machine, including the use of unauthorized accessories or non-genuine OEM parts, may affect the reliability of the machine or make it unstable or unsafe to operate and perform as originally designed and intended. Persons or organizations that make unapproved modifications assume all liability arising from or related to the modification including any adverse affect on the machine.

B) No modification can be made to the original design or assembly of the Slope–Pro™ machine (including any and all attachments, safety or control devices) without the prior written consent of the Tiger Corporation's Engineering Manager (see contact information below). Tiger Corporation retains the right to reject all claims which arise from or are related to unauthorized modifications.

C) Modifications are officially approved if at least one of the following conditions is met:

   a. The attachment, accessory or part is distributed by Tiger Corporation and is intended for a Slope–Pro™ machine application and installed in an approved manner as described in Tiger Corporation's provided instructions; or
   b. The modification has been approved in writing by the Tiger Corporation's Engineering Manager.

D) No other entity is authorized by Tiger Corporation to provide such approval.

Misuse of the Equipment

It is incumbent upon the owner and selling dealer along with their respective employees to warn and discourage users about the misuse of the equipment whenever knowledge of misuse becomes known, whether the act has, is or could occur. Such acts include, but not limited to: riding upon, use of non-OEM parts, operation on unstable or steeper slopes than specified, operating in explosive or fire-hazard areas, modifications that alter the original machine specifications or use other than originally intended, etc.

Notification of Unauthorized Modification or Misuse

If any person, employee, agent, dealer or distributor becomes aware of any Unauthorized Modification or Misuse of a Slope–Pro™ machine, either past or intended, it is the responsibility of that person to ensure that Tiger Corporation's Engineering Manager is notified of the occurrence promptly. That person shall provide; the facts of the occurrence, location, machine serial number, name and contact information of the persons involved.

Send correspondence regarding Unauthorized Modification or Misuse to:

Tiger Corporation.
3301 North Louise Ave.,
Sioux Falls, South Dakota
57107

Attn: Engineering Manager

Product Design

The Slope–Pro™ machine has been designed and produced using generally acceptable manufacturing processes as is standard in the industry for the type of equipment that is similar to the machine. As such, the useful life of the machine is ten (10) years from the date of manufacture.

The official language of the manufacturer is English.

No responsibility is assumed for translations in other languages, which do not correspond to the original meaning.

IMPORTANT: DEALER MUST COMPLETE AND MAKE A COPY OF THIS FORM AND SUBMIT TO TIGER CORPORATION WITHIN 5 DAYS OF DELIVERING THE EQUIPMENT TO VALIDATE WARRANTY.

DELIVERY AND LIMITED WARRANTY REGISTRATION FORM

Mail or fax to: 3301 North Louise Ave., Sioux Falls, South Dakota 57107 FAX: 1 800 716 7620

PROWLER SLOPE-PRO™ MACHINE INFORMATION

Machine Identification	Serial Number	Hour Meter Reading	Date Delivered	yyyy/mm/dd
Dealer			Authorized Dealer Training Representative	Print
Branch Location				Signature

CUSTOMER

Company Name		Email	
Address		Phone	
City		Fax	
State / Province		Authorized Customer Representative	Print
ZIP / Postal Code			Signature

Pre-Delivery Check List – Preformed by qualified Dealer representative for authorized Customer's representative. Refer to the Slope–Pro™ machine Operator's Manual for detailed instructions

- ☐ Ensure Operator's Manual is stored within manual container
- ☐ Verify that all safety decals are legible
- ☐ Check engine oil level
- ☐ Check fuel level and tank security (both)
- ☐ Check cooling area
- ☐ Check air cleaner and connections
- ☐ Check drive belts
- ☐ Check hydraulic tank level
- ☐ Check tracks
- ☐ Check height adjustment
- ☐ Verify mower blades, spindles are in good condition and properly secured
- ☐ Verify that PTO clutch functions correctly
- ☐ Verify that hoods and guards are in good condition and in place

Authorized Customer Representative: please initial beside the following boxes, when the item(s) are demonstrated to you and only after you fully understand the operation and / or significance of each item:

Showed location of and reviewed Operator's Manual and the limited warranty information, terms and conditions		Instructed on the forward and reverse movement and left and right steering functions	
Understand the Warning, Danger and Caution notifications identified in the warning decals and Operator's Manual		Engagement and disengagement of the mower blades and cutting height adjustment	
Instructed on all functions of the remote control, including initial control communication and identification of all functions		Understand the potential dangers of remote control vehicle operation as identified in but not limited to scenarios listed in the Operator's Manual	
Instructed on the proper starting, shut down and emergency stop operation		Instructed on the maintenance requirements as identified in the Operator's Manual	

As an authorized representative of the Customer, I hereby acknowledge acceptance of the above machine and that the machine was verified against the above check list. I have read and understood the nature and extent of the limited warranty information provided. I have been advised on and understand the proper operation, safety procedures, maintenance requirements, limitations and capabilities of this equipment for which it was designed and described in the Operator's Manual.

Authorized Customer Representative		DATE
Print	Signature	yyyy/mm/dd

Safety Alert Symbol



This symbol appears at various points in the manual together with a signal word and warning text. It means – be alert! Your safety is involved. This symbol is used throughout the manual to call attention to areas in which carelessness or failure to follow specific procedures may result in personal injury and/or component damage or malfunction.

Signal Words



DANGER! – On a red background - Identifies the most serious hazards where failure to follow listed procedures will result in a high probability of death or serious injury.

WARNING! – On an orange background - Denotes a hazard exists that could result in serious injury or death if proper precautions are not taken.

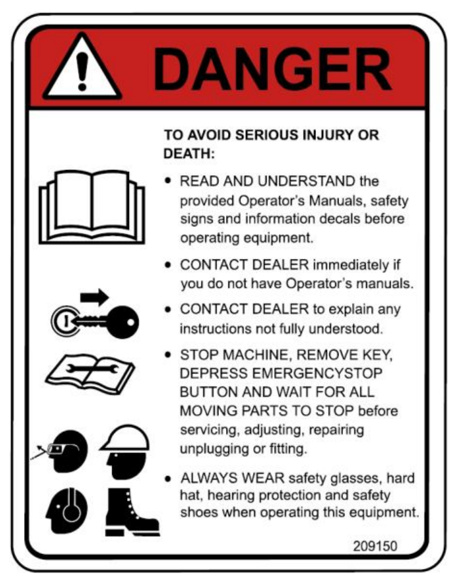
CAUTION! – On a yellow background - Is used in areas where failure to follow listed procedures may cause personal injury, component damage or subsequent malfunction.

Safety Rules

Our policy is to produce products that are safe and reliable. However, even when using well-engineered equipment, there is always an element of risk. To minimize the risks and promote safety at all times, this section of the Operator's Manual details a number of safety rules that must always be followed and obeyed.

Further safety rules and warning texts are given within the respective sections of this manual.

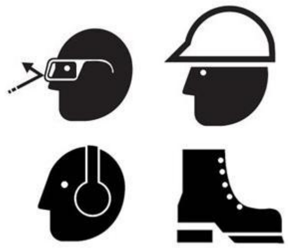
IMPORTANT! When it comes to safety, nothing will ever replace a careful operator.



It is imperative that the operator reads and understands all the safety information in this manual before proceeding. Failure to follow the instructions or heed the warnings could result in injury or death.
Proper care is your responsibility.

The manufacturer cannot anticipate every possible circumstance that might involve a hazard. The hazard alerts in this publication and on the product, are therefore not all inclusive. If a tool, procedure, work method, or operating technique not specifically recommended by the manufacturer is used, it is your responsibility to ensure that it is safe for you and others. You should also ensure the machine will not be damaged or made unsafe by the operation, maintenance, or repair procedures you choose. Modifications or adaptations to the machine are not allowed.

- It is the obligation of the operator to make sure that all guards and shields are in place on the machine. Safety decals must be in place and be readable – accidents may otherwise occur. Contact your dealer or Tiger Corporation for replacement manuals or decals.
- Should there be any information or instructions in this manual that are not in compliance with local laws or regulations in force in the country or region where this equipment is operated, the local laws and regulations must take precedence.



Safety Precautions

WARNING!

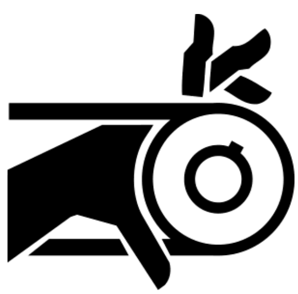
The operator of this machine must be at least 18 years of age and have sufficient knowledge and instructions before he / she uses the machine. Do not allow unauthorized persons or children to operate the machine.
Untrained operators may cause severe injuries or even fatalities. Therefore, it is important that you read and follow the instructions of this Operator's Manual.

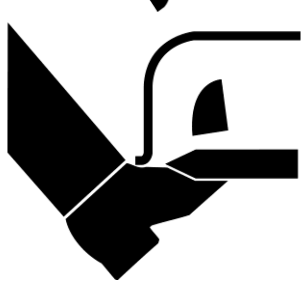


WARNING!

Do not ride or allow riders on the machine. Operate the machine remotely using the controller provided from a safe distance.

- Never use a machine that does not have an Operator's Manual available. Learn and understand the safety signs and symbols on the machine and the operator instructions before you begin to use the machine.
- Wear protective clothing (PPE) – know and use the protective equipment that is to be worn when operating or servicing the machine. Hard hats, protective glasses and face shields, protective shoes, gloves, reflector type vests, and ear protection are types of equipment that may be required. Prolonged exposure to loud noise can cause hearing damage.
- Operate the machine only when physically capable and not under the influence of alcohol or drugs.
- Keep all bystanders well away from the machine when it is operating. Always maintain a safe operating distance from personnel or other equipment.
- Carefully walk the entire area to be mowed beforehand. Look for debris, rocks, tree limbs that could damage or be thrown by the mower blades. Tall grass can hide obstacles.
- Use extra caution when approaching corners, shrubs, trees, or other objects that could obscure vision. Reposition yourself to avoid these conditions. Maintain visibility to the work zone.
- Disengage the blades (PTO) when crossing gravel areas or roadways.
- Always STOP the engine when leaving the machine unattended, turn off the remote control and remove the ignition key and keep the remote control and ignition key in a secure place so that the machine cannot be operated by unauthorized users. See page 28.
- Adhere strictly to all regulations at the worksite pertaining to the operation of this equipment.
- Never remove any element of the exhaust system or any covers and devices from the operational machine.





- Do not use the machine in limited visibility (e.g. Dusk, fog, heavy rain etc.). Mow only in daylight or good artificial light.
- Do not operate the machine with the hood open, removed or with any covers removed. Do not put hands, feet or loose clothing near power driven parts.
- Stop engine / press emergency stop button before allowing anyone to approach the machine.
- Do not touch the engine, exhaust or hydraulic system while running or just after stopping. Hot parts can cause severe burns.



WARNING!

Engine exhaust gases contain poisonous carbon monoxide. Carbon monoxide is odorless, colorless, and can cause death if inhaled. Do not run engine in confined areas.

Operation with the Remote Control

WARNING!

Machine is operated by remote control and can remain functional beyond the recommended maximum 300 foot operating range. It is the Operator's responsibility to control the machine in a safe manner.

Always know and observe the local regulations and or restrictions pertaining to the operation of remote controlled equipment.



- While operating, the machine must always remain in line of sight of the operator.
- As the machine travels away from the operator, the Operator's ability to determine exact positioning is reduced due to lack of depth perception. Recommended maximum distance between the machine and the Operator is 300 feet, but may be less depending upon Operator skill level, experience and local conditions.
- Whenever the machine is moving or the blade PTO is engaged the operator must remain a minimum of 25 feet away.
- Do not leave the remote control unattended with the engine running.
- When operating the machine in wet / low traction conditions, be aware that the machine can slide, especially on slopes. Position yourself, others and other objects (such as other equipment) accordingly so that the machine will not slide into anyone or anything and no one and no objects will slide or fall into the machine.
- Always mow across the face of slopes, never up and down.
- Never position yourself up or down slope from the machine or in the direction of travel. Even though the Slope-Pro™ machine has a fail-safe emergency shut-off system, falling into a running machine can cause severe injury.



Thrown Objects Hazard

DANGER!

Mowers can throw objects 300 feet or more under adverse conditions.

To avoid serious injury or death to operator or bystanders from thrown objects:

- Keep bystanders 300 feet away and keep everyone away from the blade exhaust area from which objects can be thrown.

Inspect area for potential thrown objects before mowing:

- **Remove** debris, rocks, wire, cable, metal objects and other foreign materials from area. Wire, cable, rope, chains and metal objects can be thrown or swing outside deck with great velocity:
- **Mark** all objects that cannot be removed.
- **Avoid** these objects when mowing.

High grass and weed area inspection

- **Inspect** and **remove** any hidden large debris.
- **Mow** at an **intermediate** height.
- **Inspect** and **remove** remaining debris.
- **Mow** at final height.

Machine thrown object shielding:

- **Keep all thrown object deflectors** in place and in good condition when mowing.
- **Do Not Operate** with any thrown object deflectors missing, damaged or removed

Right of Way (Highway) Mowing

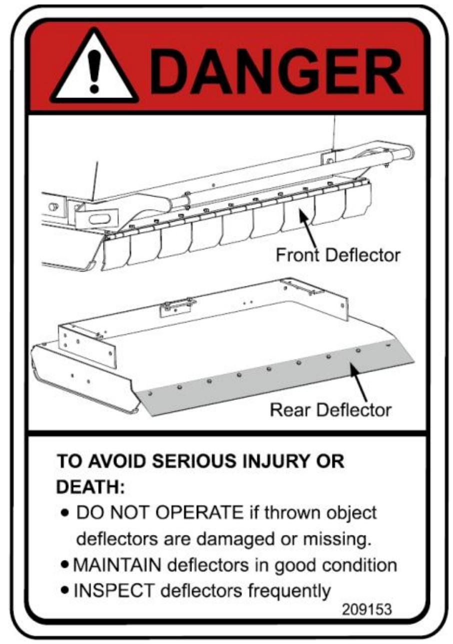
- No shielding is 100% effective in preventing thrown objects. To reduce the possibility of injury:
- Maintain machine shielding and blades in good condition.
- Raise cutting height to 6inches minimum.
- **Inspect area** thoroughly before mowing to remove potential thrown object hazards.
- **Never allow blades to contact solid objects** like wire, rocks, posts, curbs, guardrails or ground while mowing.

Various jurisdictions have specific requirements for work zone safety. Know and adhere to your local requirements. Treat the instructions in this manual as minimum requirements for safe operation.

A careful and informed operator is the safest operator.

Mower Operation

- **Do not** exceed mower's rated cutting capacity or cut non-vegetative material.
- **Adjust** cutting height to **AVOID BLADE CONTACT** with solid objects like wire, rocks, posts, curbs, guard rails and fixed obstructions.
- **Do not** travel or transporting between work sites with the blade PTO engaged.
- **STOP MOWING** immediately if blades strike heavy objects, fixed structures, metal guard rails and concrete structures:
- **Blades can fail** from poor maintenance practices and objects can be thrown with great velocity.
- **Inspect** and **replace** any damaged blades.
- **Check** blade bar and spindle for any damage.
- **Do not** mow in standing water
- Stop mowing when EXCESSIVE VIBRATION occurs:
  - Stop mower blades and engine
  - When it is safe to do so, **inspect** mower for vibration source
  - **Replace** any damaged parts and bent or damaged **blades**



DANGER!

To avoid serious injury or death from equipment run over:

- Never allow riders on the machine.
- Never ride on the machine.
- Never stand in the path of the machine
- Never stand below or down slope of the machine as it could slide or roll on top of you.
- Never stand directly upslope of the machine, make sure your footing is stable and solid to prevent slipping of falling into the path of the machine.
- Do not operate the machine in areas where you cannot clearly see in front of the machine path. Failure to see a bystander, drop-off or obstruction could result in serious injury or death.
- Only start and operate the machine with the remote control properly fitted to the operator.
- Immediately stop and shut down the machine if a bystander comes within 300 feet of the machine.
- Never operate the machine towards motor vehicle traffic. Mow in a direction parallel to vehicle traffic.







Fuel Handling Precautions

DANGER!

Gasoline and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death.

- Turn engine OFF when refueling.
- Refill one fuel tank at a time. Remove it from the machine to refill. Replace the empty tank with a full one and properly secure the tank.
- Refuel in a well-ventilated area or outdoors.
- Do not smoke while refueling.
- Do not overfill fuel tanks. Do not fill past "full" mark on fuel tank.
- Keep gasoline away from sparks, open flames, or other ignition sources.
- Check fuel lines, tank caps, hoses and fittings frequently for cracks or leaks. Replace as necessary.
- Never operate the machine without the fuel tank tie-down straps in place.
- Keep the fuel tank cap installed and tight. Should the fuel tank cap be lost, replace it only with the original manufacturer's approved cap.
- Clean up spilled gasoline immediately. Allow it to evaporate before starting engine.
- Do not operate the machine without muffler, air cleaner, fuel cap or fuel tank vent lines in place.
- Do not crank the engine with the spark plug removed.

Fire Prevention Precautions

- Prevent combustible debris from collecting on the machine. This debris by itself may not cause a fire, however, when mixed with fuel, oil, or grease in a hot or confined space, the danger of fire increases dramatically.
- Do not operate machine in areas with fire or explosive risk
- Check to make sure gasoline and hydraulic hoses are not worn or damaged, and are routed to avoid chafing.
- Inspect wiring for chafing, breakage, and any routing condition that could expose wiring to damage. This is especially important for positive electrical wires that could make contact with the frame (ground). Pay special attention to the cables from the battery to the starter.
- When reconnecting wires, it is important to connect, route and secure them so they are protected from damage and wear. They must not be routed in contact with fuel or oil hoses.

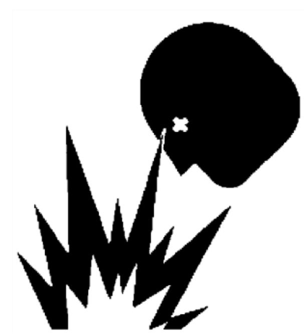
To reduce the chance of fire, follow these instructions:

- Clean dust and debris from the machine daily.
- Inspect the machine daily for potential fire hazards and make any necessary repairs immediately.
- Inspect electrical wiring, connections and hydraulic hoses to ensure they are secure and not rubbing against other components.
- Clean up spilt fuel, any excess grease and oil accumulation or spillage immediately.
- Use only non-flammable solutions for cleaning the machine or components.
- Store oily rags and other combustible materials in a safe, fireproof location.
- Before starting repair work such as welding, remove fuel tanks, clean the surrounding area and place a fire extinguisher close by.
- Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Battery Maintenance Precautions

The Slope-Pro is equipped with an Absorbed Glass Mat (AGM) battery and contains no liquid acid within. However, all precautions regarding general battery handling should be observed.

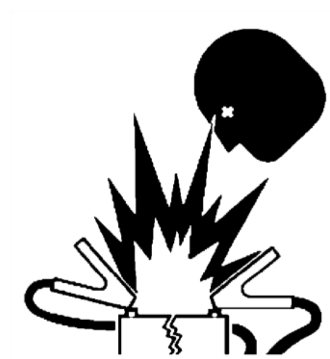
Batteries produce explosive gases. Keep sparks, flames, smoking materials, and other ignition sources away from batteries.



WARNING!

Explosive gases. No smoking. Keep sparks and flames away from batteries.

- Never lean over a battery during charging or testing operations.
- Be familiar with procedures for charging and testing a battery. Read and follow the manufacturer's instructions for the battery charger.
- Do not boost or jump-start a disabled machine.
- Remove battery from the vehicle before attempting to charge.
- Place a wet cloth over the battery and its vent before charging. Ensure that the cloth is not placed near any belts or any other moving parts.
- Disconnect the negative cable first when removing a battery. Connect it last when installing a battery.
- Do not let metal objects come in contact with the battery terminals.



WARNING!

Use only voltage regulated battery chargers. Use of constant current chargers can lead to an over-charge condition. Subsequent gas pressure build-up can cause an explosion. Severe personal injury or death could result.

Welding and Grinding Work Precautions

IMPORTANT! A fire extinguisher should be easily accessible during all welding work.

Disconnect battery, the receiver and antenna cables.

- Welding repairs are to be performed by a trained welder with proper service instructions. Know the material to be welded and select the correct welding procedure and materials (electrodes, rods, wire) that will provide a weld metal strength equivalent to the parent material.
- Move the machine to a clean, safe area before welding, grinding or using an oxy/acetylene torch on it. This type of work should only be done in a clean area and not in places that contain combustible liquids, such as fuel tanks, hydraulic pipes or similar.
- Connect arc welder ground as close as possible to work area.
- Work with extra care when welding, grinding or torch cutting near flammable objects.



Work on Painted Surfaces

Heated paint gives off poisonous gases. Therefore, paint must be removed from an area with a radius of at least 4 in (10 cm) before carrying out welding, grinding, or gas cutting. In addition to the health hazard, the weld will be of inferior quality and strength if the paint is not removed.

Methods and precautionary measures when removing paint:

- Blasting – use respiratory protective equipment and protective goggles.
- Paint remover or other chemicals – use a portable air extractor, respiratory protective equipment, and protective gloves.
- Grinding – use a portable air extractor, respiratory protective equipment, and protective gloves and goggles.

Working on Hydraulic Systems Precautions



WARNING!

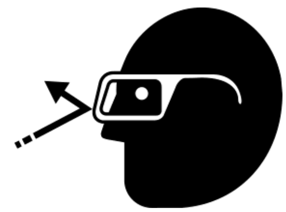
Risk of personal injury! Wear safety glasses and use protective gloves.

Relieve all trapped pressure before performing any service to the hydraulic system. Pressure can be maintained in the hydraulic circuits long after the power source and pump have been shut down.

- Relieve all pressure before disconnecting hoses or tubes.
- Tighten all connections before applying pressure.

It is important that each person who comes in contact with the machine be alert to any faults.

Follow these basic precautions:



- Never adjust a pressure relief valve or other pressure-limiting device to a higher pressure than specified.
- Check to make sure hydraulic hoses are not worn or damaged, and are routed to avoid chafing.
- Immediately replace any hydraulic hose that shows signs of swelling, wear, leaks or damage so it does not burst.
- Do not use your hand to check for hydraulic oil leaks. Use a piece of cardboard instead. Hydraulic fluid escaping under pressure can penetrate the skin causing serious injury. If skin penetration occurs, seek medical attention immediately. Relieve all pressure before disconnecting hoses.
- Do not bend or strike high-pressure lines, tubes or hoses, or reinstall them in a bent or damaged condition.

Handling Hydraulic Oil Precautions

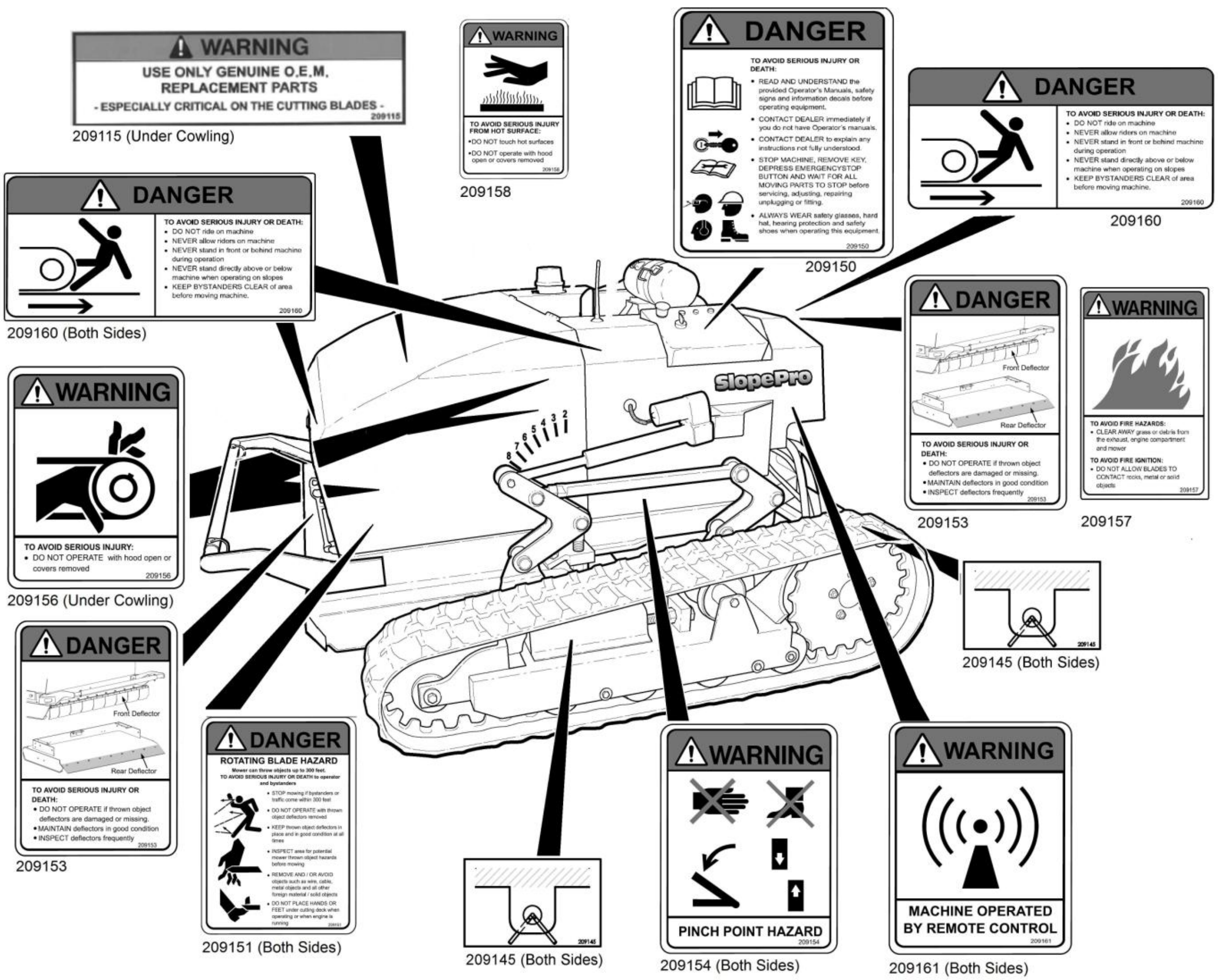


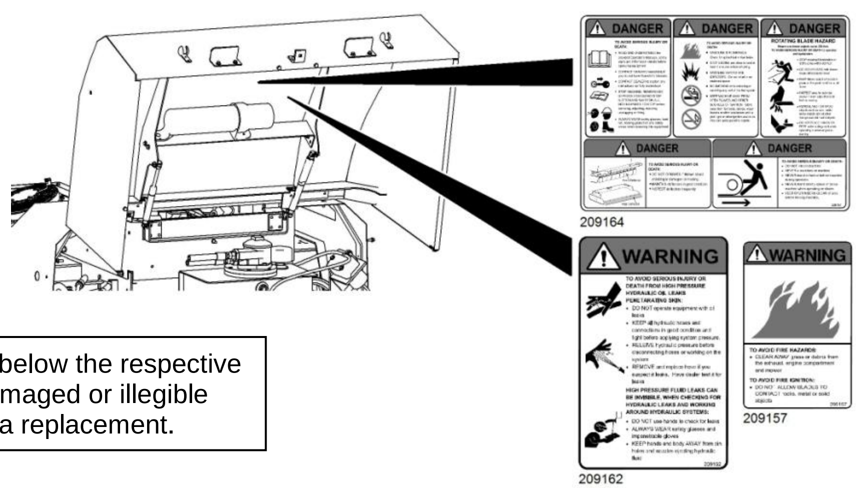
WARNING!

Risk of burns! Use protective work gloves.

- Hot oil can cause painful burns. Use caution when changing the hydraulic oil.
- Oils can irritate and damage the eyes, throat, and sensitive skin. Avoid contact.
- Petroleum based oils are hazardous to the environment. Take special care not to spill or discharge these fluids. Use approved containers and methods to handle and dispose of them.
- Use an authorized disposal and recycling company.

Safety and Information Decals





Decal part numbers are shown below the respective illustrations. Always replace damaged or illegible decals. Contact your dealer for a replacement.

Remote Control Safety Features



A careful and informed operator is the safest operator. Due to the nature of this remote controlled machine, the operator nor any bystanders should not be beside this machine while operating. Several safety features have been incorporated into the design of the remote control as outlined below.

Always use both the neck strap and waist belt to secure the remote control to your person. Never hold the remote control in your hands as you may not have full command over the remote control functions in the event of an emergency.

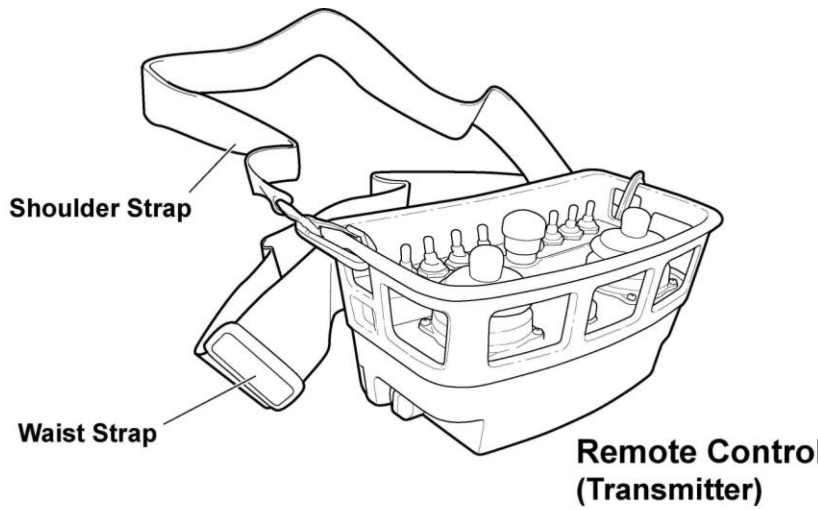
WARNING!

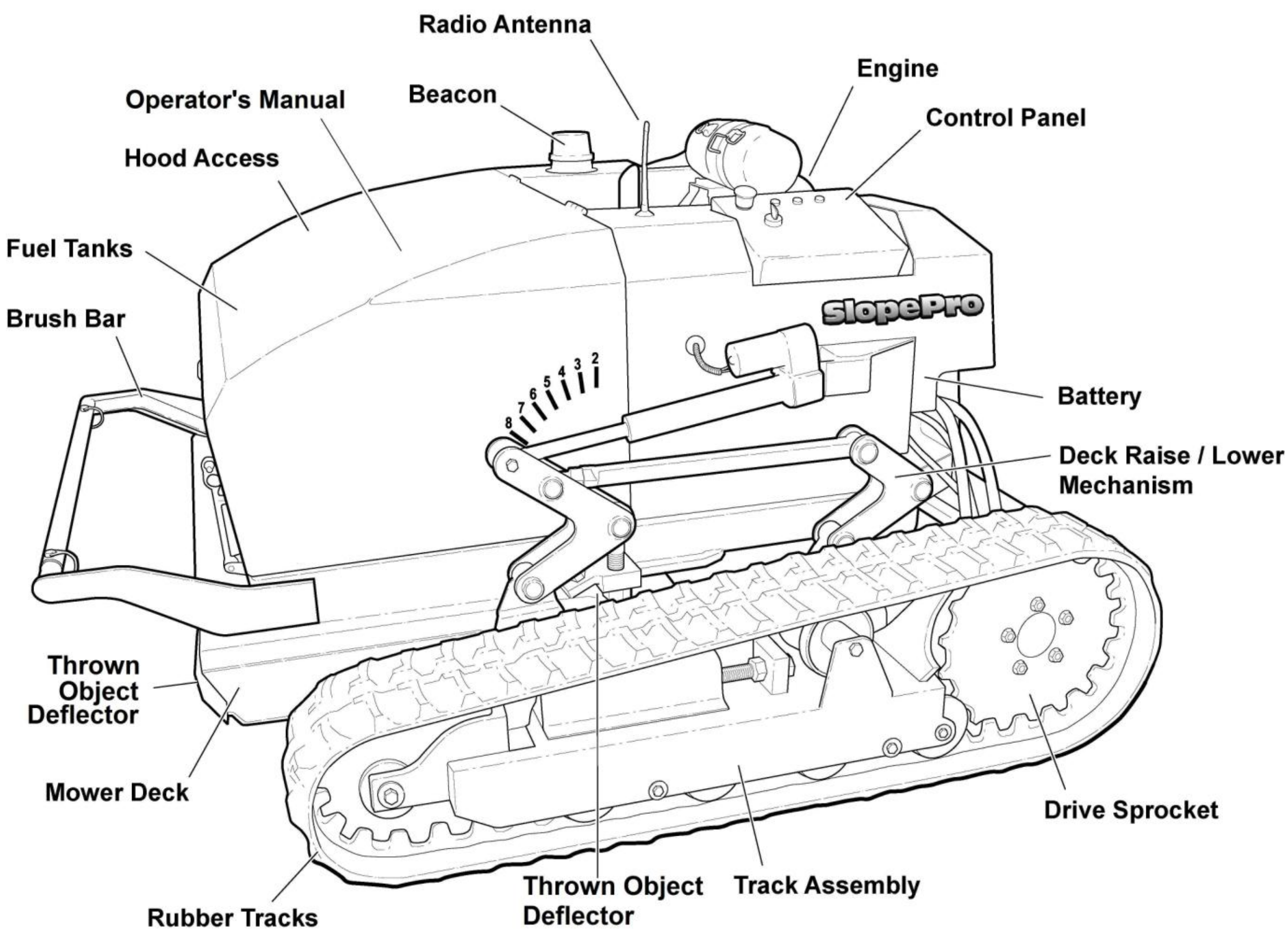
Machine is operated by remote control and can remain functional beyond the recommended maximum 300 foot operating range. It is the Operator’s responsibility to control the machine in a safe manner.

Feature	Activated when –	Result
Engine Start Interlock	– Emergency stop applied – Engine is off with drive system engaged – Engine is off with PTO engaged	▪ Engine will not start
Machine out of Range / Signal Failure Protection	– Wireless Signal to the machine is lost or machine is out of range from remote control	▪ PTO disengages ▪ Drive system stops ▪ Brakes are applied ▪ Engine remains running
Emergency Stop Button	– An emergency situation occurs and the machine must be stopped immediately	▪ From remote: Engine and drive system shut down. Brakes applied. ▪ From Console: Engine, electrical and drive systems shut down shut down. Brakes applied
Remote Level Switch	– Remote is tipped over 45º in any direction	▪ Engine and drive system are stopped. Brakes are applied

General Information

Slope-Pro™ Machine Major Components

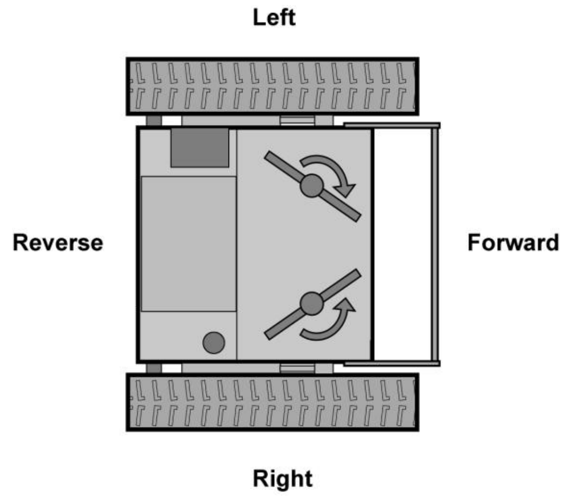




Direction References

Throughout this manual, references are made to left-hand and right-hand directions. All directions are indicated with the operator standing at the rear of the machine facing the direction of forward travel.

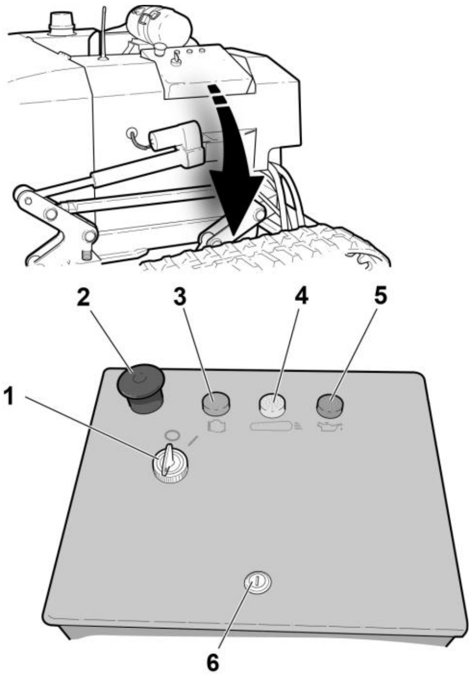




Machine Specifications

Engine	– Kohler Command-Pro EFI Engine – 29 hp
Travel Speeds	– Infinitely variable up to 6 mph
Traction Drive	– Two variable displacement axial piston pumps – Two fixed displacement cam-lobe radial piston motors – Two spring-apply / hydraulic release multi-disc brakes
Cutting Deck Drive	– Belts and mechanical clutch
Cutting System	– Two-blade rotary (interchangeable finish/flail blades) – Maintenance-free spindles
Cutting Height	– 2.25 – 8 in
Working Width	– 52 in
Tracks	– Turf Friendly – 9 in wide X 48 in ground contact
Remote Control	– Remote control of all machine functions – 300 foot recommended maximum operating range – Internal switch stops engine and drive, and applies brakes when remote control is tilted more than 45° fore/aft or side to side – Controller-Compact M2 receiver. 7.2V rechargeable
Fuel Tanks	– Two removable 3.2 gal with sight level gauges and quick-disconnect lines
Dimensions	78 in Wide X 80 in Long X 37–43 in High
Weight	2640 lb

Controls



Control Panel

The following controls are located on the control panel on the machine.

1. Ignition Switch

This is a three-position switch. The engine cannot be started with this switch from the control panel. Turn the switch clockwise to RUN (I) position to power on the electrical system. Turn the switch counter-clockwise to turn the engine OFF and power off the electrical system.

O = OFF   I = RUN

The left hand most counter –clockwise position is not used

2. Emergency Stop Button
Press the button to kill engine power in an emergency. Pull to release. An emergency stop button is also located on the remote control.

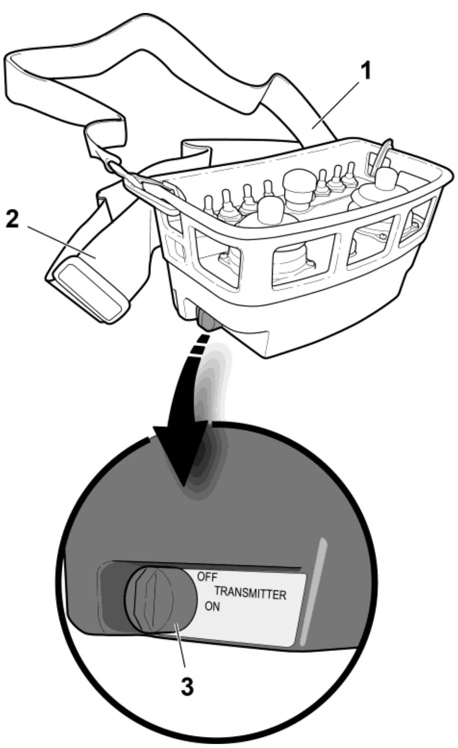
3. Check Engine Lamp (red)
If illuminated, indicates an engine problem.

4. Drive System Engaged Lamp (amber)
If illuminated, indicates the drive system is activated.

5. Check Engine Oil Lamp (red)
If illuminated, indicates an oil pressure problem.

6. Panel Lock

Service meter / Tachometer (not shown)
The Service meter mounted to the left side of the engine keeps track of the actual hours the engine has operated. It is not resettable. Use it to schedule service intervals.
The tachometer displays engine rpm when the engine is running.



Remote Control

The remote control is considered part of the machine. For more information refer to the remote control user manual supplied with the manual set for the machine.

1. Shoulder Strap
Place this strap over your head and around the shoulders to support the remote control. Adjust for a comfortable fit.

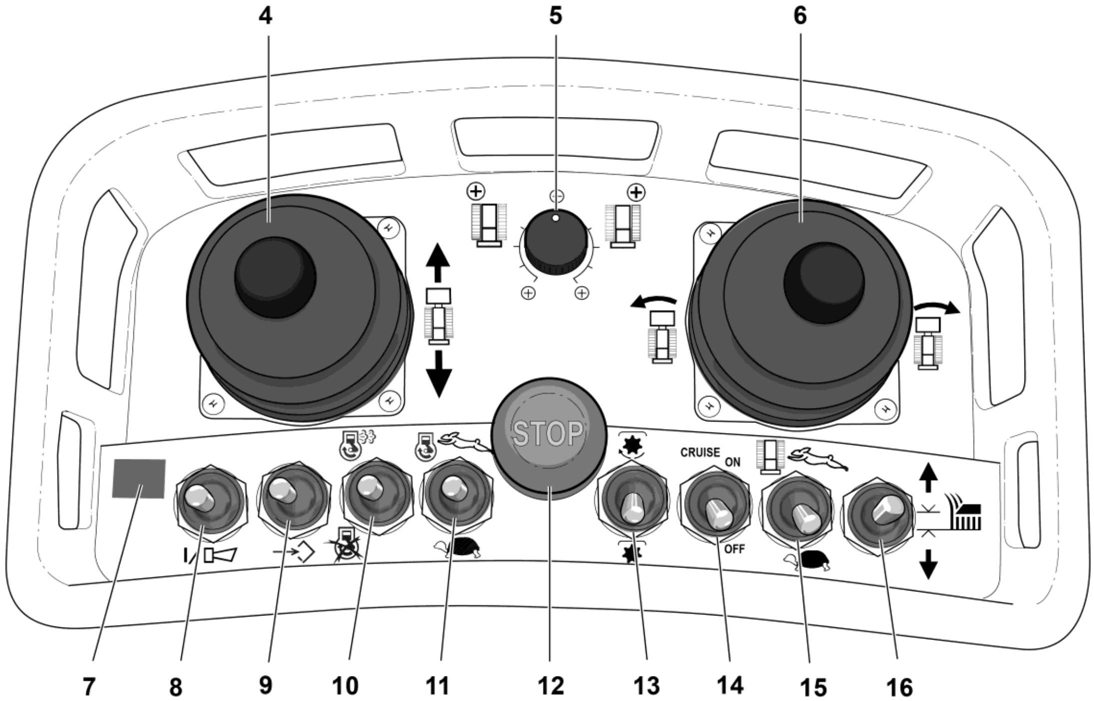
2. Waist Strap
This strap is placed around the waist to help secure the remote control. Adjust for a comfortable fit.

3. Remote ON / OFF Switch
This is the power switch for the remote control. Turn fully clockwise to power up the remote control. Once powered up, the engine can be started and the machine completely controlled using the remote. The switch must be kept on at all times to operate the machine.

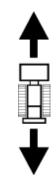
Turn the switch fully counter-clockwise to turn the power switch OFF.

WARNING!

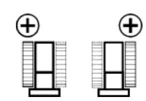
Engine will remain running if remote control is powered off during operation. Drive will stop, brakes will engage and PTO will disengage.



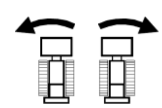
4. Direction Control (self-centering)
Push forward on the control lever for forward travel. Pull rearward for reverse travel. The further the lever is pushed, the faster the machine will travel. When the desired speed is reached, set the cruise ON. *See item 14 Cruise Hold On/Off*.



5. Bias Control
This control keeps the machine running straight when encountering different traction conditions from one track to the other. If traction is lost on one side, the machine will turn in that direction. Turn the dial clockwise to increase right-hand track speed. Turn the dial counter-clockwise to increase the left-hand track speed.



6. Steering Control (self-centering)
Push the control lever to the left for left-hand turns. Push the control lever to the right for right-hand turns. The farther the lever is pushed, the more aggressive the turn will be. Pushing the lever fully left or right will allow a full turn on the spot.



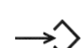
7. Frequency Indicator Lamp
Indicates the radio frequency for the remote control. During operation, the red lamp flashes to indicate normal operation. For more information, refer to the remote control operator's manual.

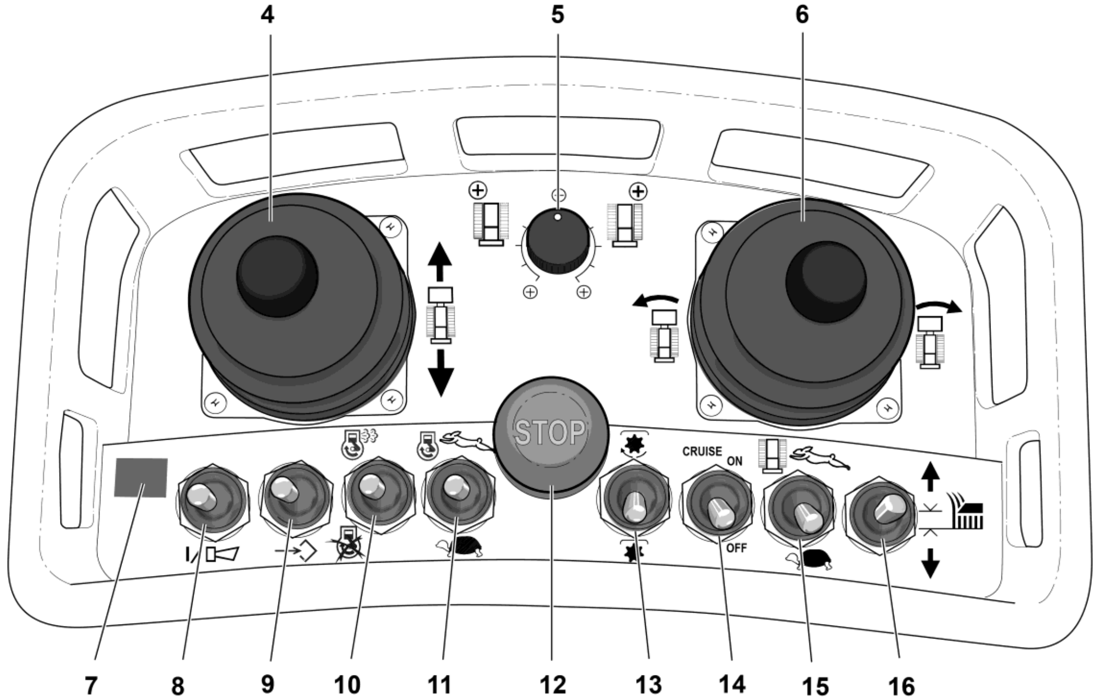
8. Enable / Horn (self-centering)
This switch synchronizes the wireless signal between the remote control and the receiver on the machine. Push the control switch forward to initiate a "handshake" between the two and the horn will sound when communication is established.



After synchronization this switch activates the horn at any time.

9. Frequency (self-centering)
The Slope-Pro™ machine's remote control can operate on 50 different radio frequencies. This permits the safe usage of multiple machines on a single work site. Refer to the Remote Control manual for more information.







10. Engine Start / Stop (self-centering)
Push the control switch forward and hold to start the engine. Pull it rearward to stop the engine.



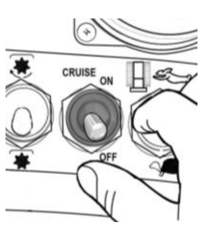
11. Throttle Up / Down (self-centering)
Push the control switch forward to raise engine speed (work mode). Pull the switch rearward to lower engine speed.



12. Emergency Stop
Depress this button to kill the engine in an emergency. An emergency stop button is also located on the control panel on the machine. Rotate clockwise to release.



13. PTO On / Off
This control switch engages the power take-off (PTO) to power the mower blades. Push the control switch forward to engage the mower deck. Pull the control switch rearward to disengage the mower.

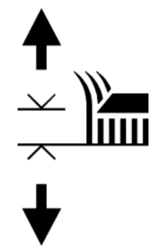


14. Cruise Hold On / Off
Use this switch to set and maintain the mowing speed. Use the directional control lever (4) to set the machine in motion. Once the desired cutting speed is reached, push this control lever forward to lock the speed.

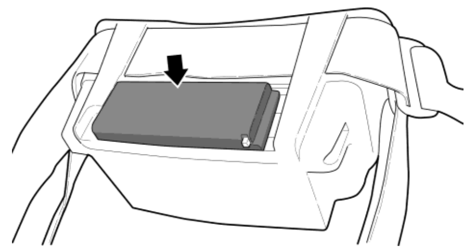
Switch Cruise Hold to OFF to release.



15. Range Low / High (Work / Travel)
This control switch sets the speed range of the machine in either high or low range. Push the lever forward for high-speed (travel) range. Pull the control lever rearward for low speed (work) range.



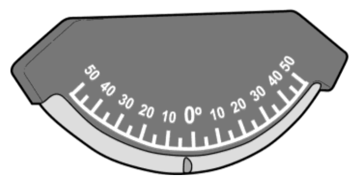
16. Deck Raise / Lower (self-centering)
This control switch is used to raise and lower the mower deck. Push the control lever forward to raise it. Pull the control lever rearward to lower it. Mower deck height is fully variable and visible from both sides of the machine. Markings are shown in 2 inch graduations indicated by the position of the control arms.



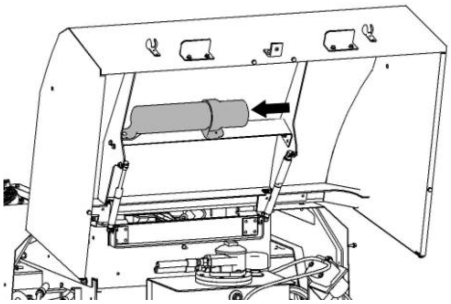
17. Remote Control Rechargeable Battery
The 7.2 V rechargeable battery for the remote control is located on the rear side of the remote. Refer to the Remote Control Manual for low battery notification and instructions on using the 12V and 120V charger included with the machine.

The remote is equipped with an auto-shutdown feature. Remote will power off in 20 minutes if no function is activated. Turn power switch OFF then ON to restart.

Slope Meter



The slope meter is located on the rear left-hand side of the machine. The slope is shown in 10-degree increments. Use it to verify grades the machine is operating on. Use caution when approaching the machine, always turn off the mower blades and approach from a safe direction never from directly above or below the machine.



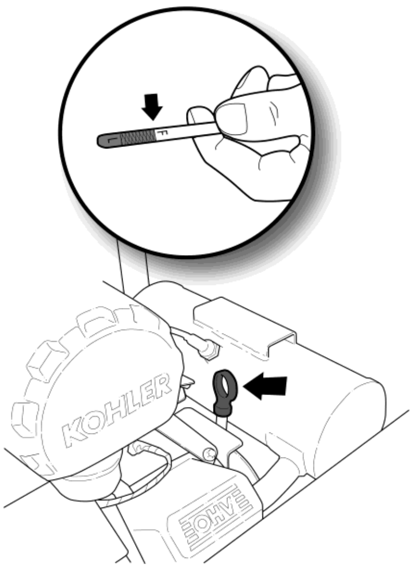
Pre-start Instructions

BEFORE OPERATING THIS MACHINE

Check that the Operator's Manual is located in the manual container and is in good condition. Contact your dealer immediately if you do not have an Operator's Manual

Carefully read the Operator's Manual, completely understand the Safety Messages and instructions, and know how to correctly operate this machine. Contact your dealer for an explanation of any instruction not fully understood.

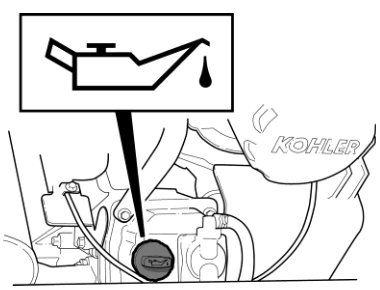
Verify that all safety decals are in place and legible, guards and covers are in place and properly secured / positioned.



1. Check Engine Oil
Check engine oil daily or before each use. If low, add oil. Do not overfill.
Make sure the machine is parked on level ground. The engine must be OFF and allowed to cool.

- Clean any debris from around the dipstick to prevent oil contamination.
- Withdraw dipstick and wipe off oil.
- Re-insert dipstick fully, then remove to check. Oil should be up to, but not over the F (full) mark on the dipstick.
- If the oil level is low, add until it is up to the F mark. The filler cap is located on the left-hand side of the engine.
- Add oil in small amounts and recheck with the dipstick before adding more.
- Reinstall the filler cap and make sure the dipstick is secure.

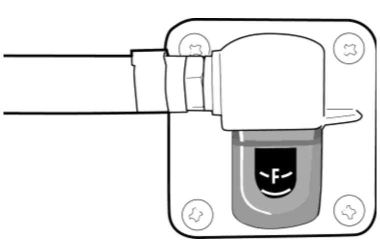
IMPORTANT! Ensure oil level is at the F (full) mark for steep slope operation.



CAUTION!

To prevent extensive engine wear or damage, always maintain proper oil level in the crankcase. Never operate the engine with the oil level below the L (low) or above the F (full) marks on the dipstick.

2. Check Fuel Level and Security
The fuel tanks are accessed inside the front hood. Each tank has a sight level gauge. Only one tank is used at a time. Verify that tanks are secure and straps are in good condition.

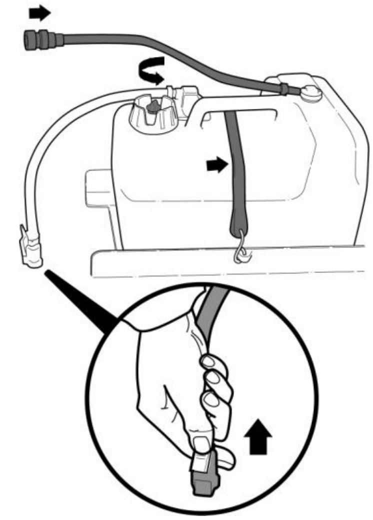


If fuel is required, remove the tank from the machine.

- Disconnect the fuel tank's vent line and remove the tank strap.
- Depress the catch on the fuel line hose and pull the hose off of the spigot.
- Remove the tank and refuel in a well-ventilated area away from the machine.
- When installing the fuel tank, ensure spigot is clean. Reconnect vent line, fuel line, and tank strap. Wipe up any spilled fuel.
- Ensure that the air inlet valve is open on the operating tank.

⚠ WARNING!

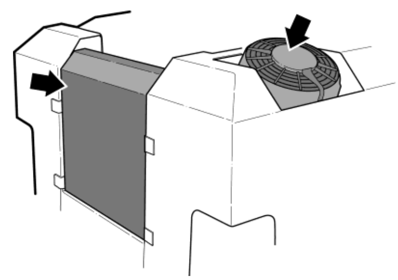
Remove the gas tank from the machine to fuel up. Gasoline and gasoline vapors are extremely flammable and can explode if ignited causing fires and severe burns. Refill the fuel tank outdoors or in a well-ventilated area. Clean up spilled fuel immediately.



⚠ CAUTION!

Reconnect fuel supply and vent lines before operating the engine. In order to comply with emissions regulations, both fuel supply and vent lines must be connected at all times. Failure to do so will result in abnormal engine operation. DO NOT run the machine with the hood open.

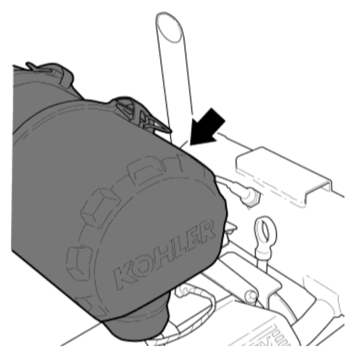
3. Check Cooling Areas



Make sure rear screen, hydraulic oil cooler and engine surfaces are kept clean and free of debris.

The electric cooling fan may start without notice and discharge dust, always protect your eyes with proper safety equipment.

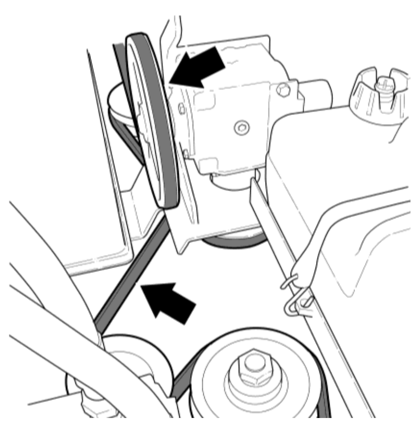
In some cases where the mowing conditions are extremely dry, grass debris may collect on the rear screen. If this happens, run the machine in reverse to help avoid the problem.



4. Air Cleaner

Check the air cleaner daily before starting the engine for dirt and debris. Remove the cover and remove any loose debris or material from the filter element.

IMPORTANT! Running the engine with loose or damaged air cleaner components could allow unfiltered air into the engine, causing premature engine wear or failure.



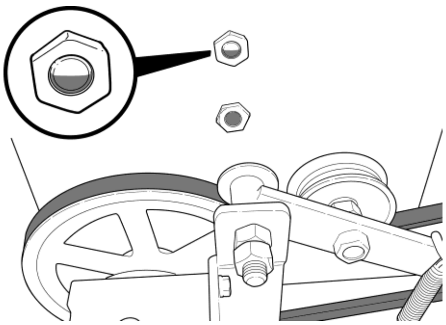
5. Drive Belts

Open the front hood and check condition of all drive belts.

Check both of the main drive belts on the engine output shaft.

Check both mower drive belts. Look for cracking or wear.

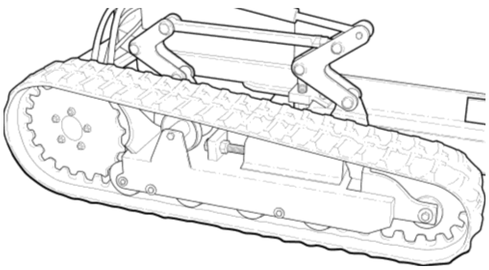
Clean any debris from this area.



6. Hydraulic Oil Level
Check the sight glass on the front of the hydraulic tank. The oil level should be visible half way in the upper sight glass with the machine parked on level ground. If oil needs to be added, refer to page 46 for more information on oil type and procedure.

Inspect the oil tank breather and remove any debris.

Check for any signs of hydraulic leaks



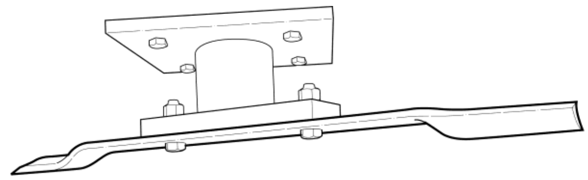
7. Tracks and Height Adjustment
Check the condition of the tracks and drive mechanism. Check the deck height adjustment mechanism. Clean any debris from these areas.

To check track tension, refer to page 40.

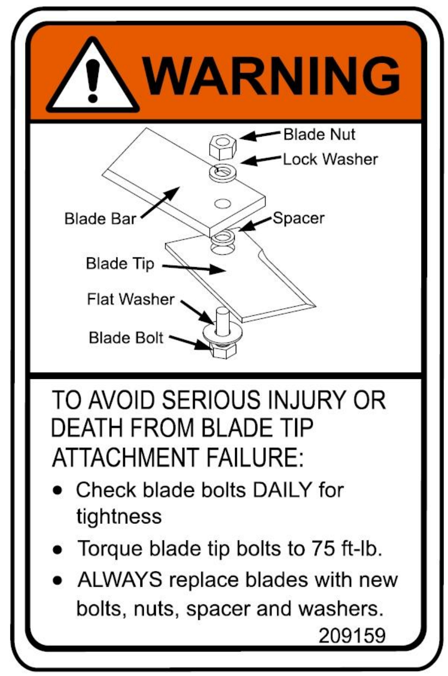


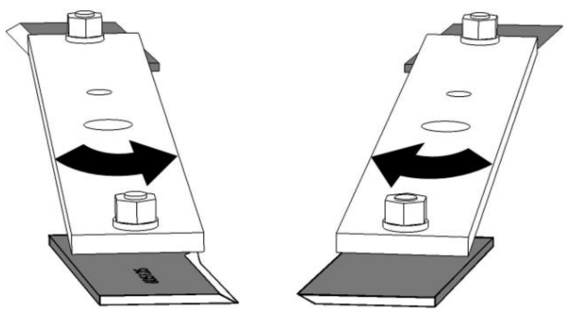
8. Mower Blades and Spindles

Check the mower blades, spindles and the underside of the deck. Replace any blade that is bent, excessively nicked, worn or has any other damage. Small nicks can be ground out when sharpening.



- Make sure blades are tight and in good condition.
- Clean any debris from these areas.
- When replacing mower blades, be aware of blade rotation as blades rotate in opposite directions. Ensure the cutting edge is facing in the correct direction
- When viewed from above and per machine orientation as identified on page 17, the left hand blade turns clockwise.
- When viewed from above and per machine orientation as identified on page 17, the right hand blade turns counter clockwise.
- There are two styles of blades available:
  - The one piece mulching / grass blade
  - The three piece brush cutter blade with swing tips
- Always ensure blades are balanced. Refer to page 47





Blade rotation –
as viewed from the front

9. Hoods, Covers

Check that all hoods and covers are in place and in good condition.

- Check thrown object deflectors on front and rear of mower and ensure they are free to move and naturally hang down without any binding.
- Check all hoods and covers for loose parts or damage.
- Ensure that hood strut lock functions correctly
- Do not rely on the hood strut lock to secure the hood in the open position if mower positioned on a slope or if the hood is opened during high or gusty winds.



Check All Fasteners

Ensure all fasteners are present and properly tightened.

Operating Instructions

Run-in

The first few hours of machine use are called the "run-in" period. Some parts of the machine will need to be checked for adjustment after this period; therefore, the following procedures must be performed to keep the machine in proper operating condition.

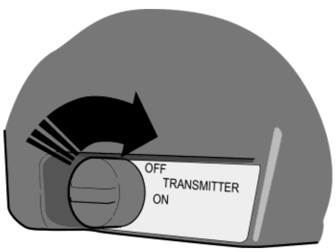
Perform these checks after the first 4 hours of use, then at the scheduled intervals after that. See Daily Pre-Start Check page 38.

- Check track tension. See page 40 - 41.
- Check tension of all drive belts. Refer to page 40 - 41.
- Check all oil levels.
- Check all fasteners. Refer to page 51.

Starting the Engine

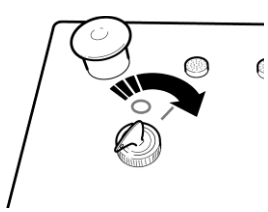
- Perform all the Pre-start Checks outlined on page 22.

The engine is started using the remote control. Use the remote control to change the engine operating speed.

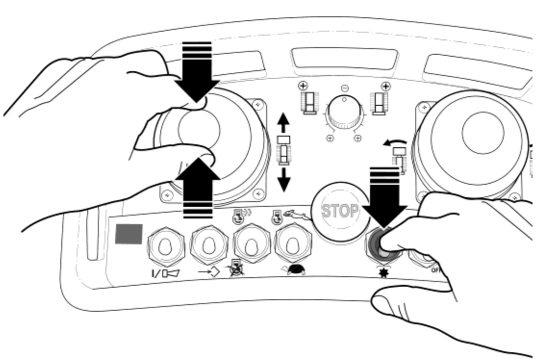


CAUTION!

If the engine does not start, do not crank the starter continuously more than 10 seconds at a time. Damage to the starter may result. Allow the starter to cool for 60 seconds between attempts.

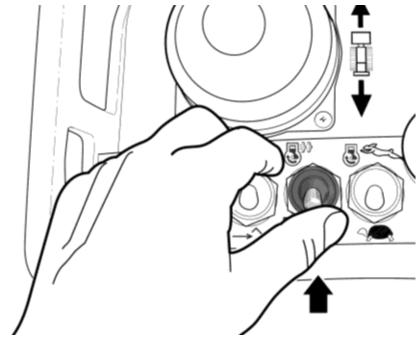


- Reset all emergency stop buttons if applicable (console and remote control).
- Make sure the directional control lever is centered in the neutral position. The machine will not start if the drive system is engaged.
- Make sure the PTO is disengaged. As a safety precaution, the machine will not start with the PTO engaged.

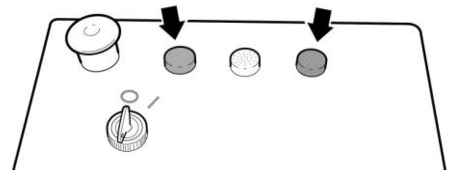


- Turn the on/off switch on the remote control to the ON position.
- Turn the ignition key on the machine console to the RUN (I) position.
- Push the Enable toggle switch to establish communication between the remote control and machine. The horn will sound when communication is established.

- Push the Engine Start toggle switch forward to engage the starter. Release when the engine starts.



- Once the engine is running, verify the Check Engine and Low Engine Oil Pressure warning lamps on the console are OFF. If they are NOT off, stop the engine immediately and have a qualified technician rectify the problem.

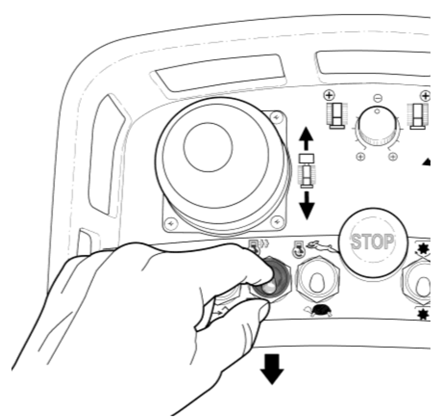


Cold Weather Operation

- Ensure the proper oil viscosity is used for the anticipated ambient temperature. See page 38.
- Allow engine and hydraulic system to warm up for 15 minutes before operating machine in temperatures below 10ºC (50ºF).
- If it is anticipated that the machine will encounter temperatures below 7ºC (37ºF) it is recommended to store machine indoors if using the factory fill hydraulic oil.
- Remove mud and debris from machine prior to shutdown.

⚠ WARNING!

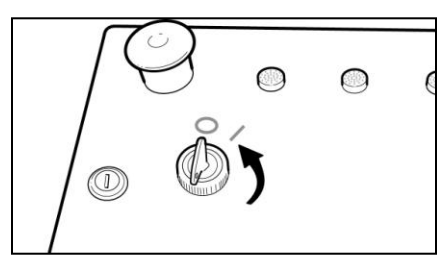
Engine exhaust gases contain poisonous carbon monoxide. Carbon monoxide is odorless, colorless, and can cause death if inhaled. Do not run engine in confined areas.

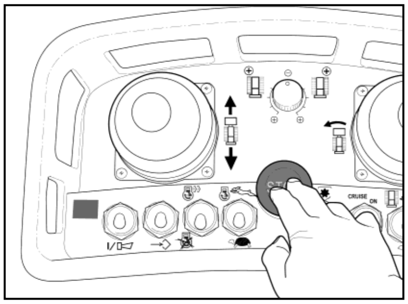


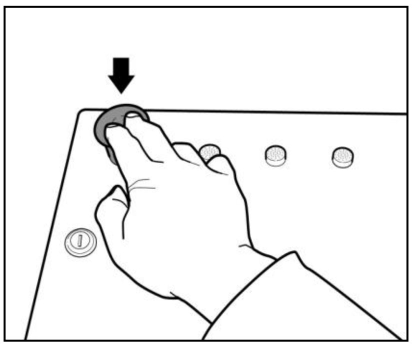
Stopping the Engine

IMPORTANT! Run engine at idle for 5–10 minutes before shut down to allow internal engine components to cool.

- Pull the engine start /stop control switch on the remote control rearward towards the operator to the off position.
- On the control panel, turn the key switch counter-clockwise to the OFF (O) position.
- Turn the remote on/ off switch to the OFF position.
- NOTE! Engine cannot be re-started for 5 seconds after activating the engine stop function.

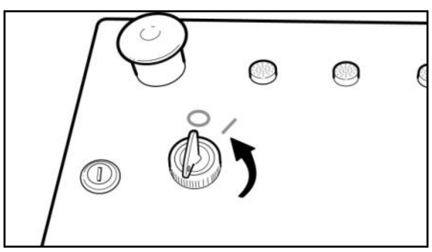






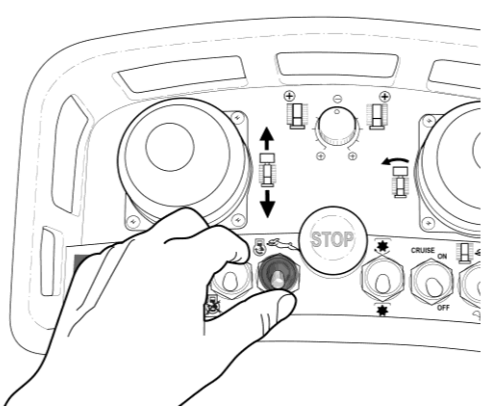
Stopping the Engine in an Emergency

- If it is necessary to stop the engine in an emergency, depress the red STOP button on the remote control **or** the red stop button on the machine console. Depressing either button stops the engine.



Leaving Machine Unattended

- If leaving machine unattended always locate in a safe area away from hazards such as vehicular traffic.
- Flag the area if necessary.
- Park on a level surface. Block the tracks to prevent movement if necessary. Shut off the machine.
- Remove and retain the ignition key.
- Lock the hood.
- Secure the remote control unit in a safe location to prevent unauthorized use.



Engine Throttle

- Increase the engine speed by pushing the throttle up / down toggle switch forward. Set the engine speed to maximum for machine operation.

IMPORTANT! Do not tamper with the engine governor setting to increase maximum engine speed.

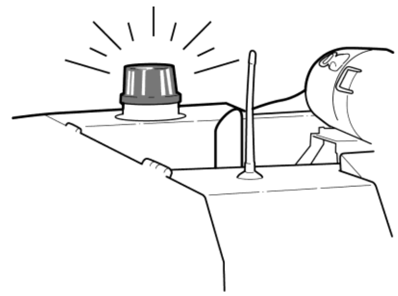
For best cutting and overall operational performance, always operate with the engine at maximum rpm.

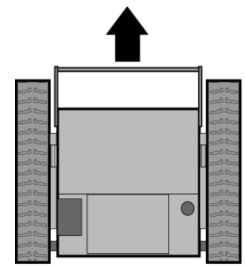
Driving the Machine

Direction / Speed Control

The direction / speed control is infinitely variable. The mowing speed can be adjusted to match conditions. The normal direction of travel is with the brush bar facing forward.

When the drive system is engaged, the beacon will flash.

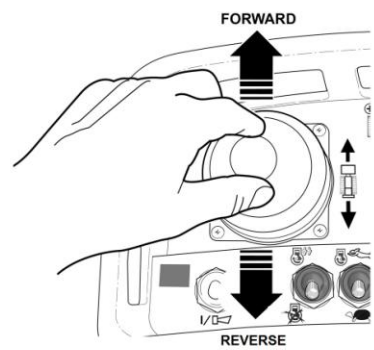




Forward

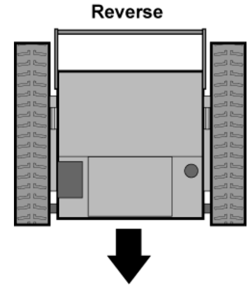
Set the machine in motion by moving the directional control lever. Pushing the control forward moves the machine in the forward direction.

- The farther the control lever is pushed, the faster the machine will travel. Releasing it will stop the machine.



- To reverse the machine, pull the control lever rearward toward the operator.

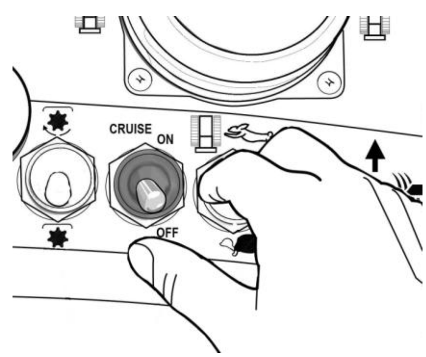
Reverse



Cruise Hold (Ground Speed Hold)

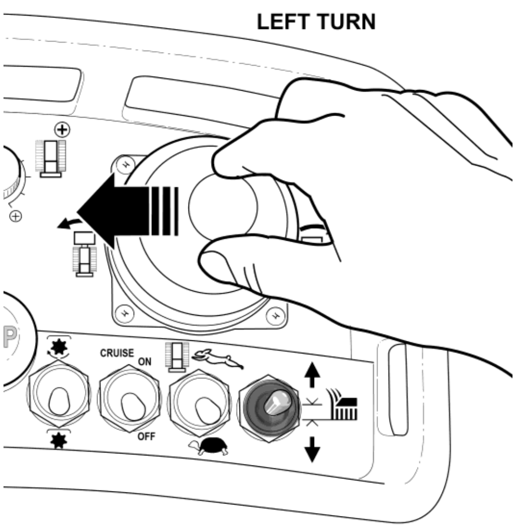
Once the desired ground speed is achieved, the Operate can hold that speed using the built-in "Cruise Hold" feature. This alleviates strain and fatigue for the operator trying to constantly maintain a set speed.

- When the desired ground speed is reached, set the "Cruise Hold" switch to the ON position to maintain a constant speed.
- NOTE – To disengage, the "Cruise Hold" switch must be turned "OFF".
- Reset the "Cruise Hold" by switching it off then back on once the desired cutting speed is reached.
- When the "Cruise Hold" is activated the Forward / Reverse direction control lever is de-activated.



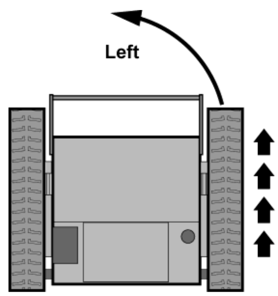
Steering

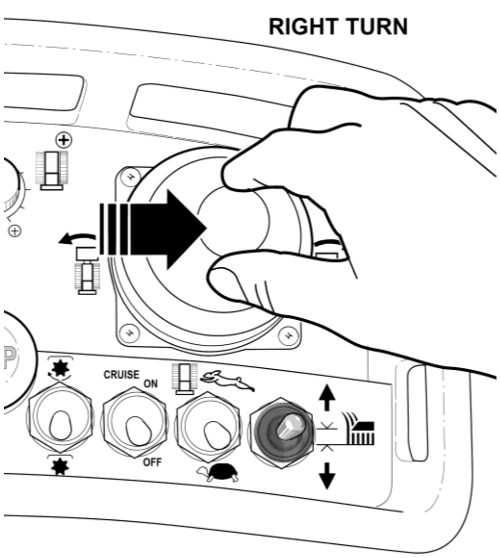
Use the right-hand control lever to steer the machine. Push the lever to the right or to the left to steer in that direction, as viewed from the rear of the machine. Sense of direction is reversed if viewed from front of machine.



Left-hand Turn

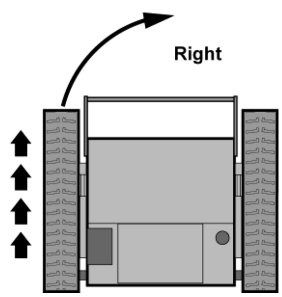
- Push the lever to the left to make a left-hand turn. The farther the lever is pushed, the sharper the turn. The drive on the left hand side is slowed or stopped to allow the turn.



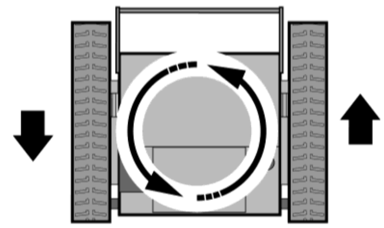


Right-hand Turn

- Push the lever to the right to make a right-hand turn. The farther the lever is pushed, the sharper the turn. The drive on the right hand side is slowed or stopped to allow the turn.



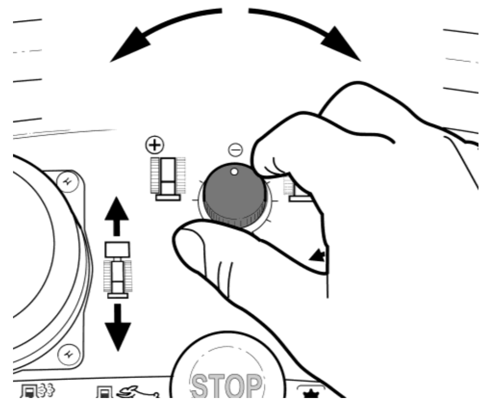
360º Turn



- Make a complete 360º turn by pushing the control lever fully to the left or right. The drive mechanism on that side will reverse in the turn direction allowing the machine to pivot about its axis.

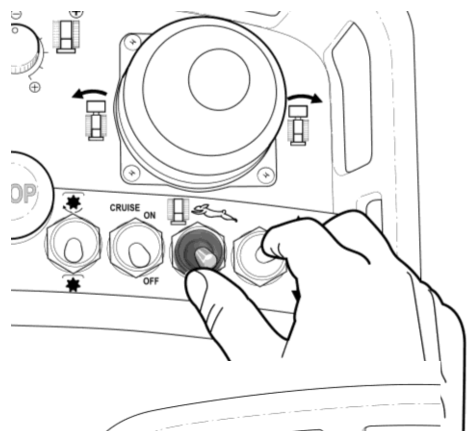
Bias Control

Use the Bias Control knob to make small steering adjustments while the machine is moving to keep it running straight. Use the Bias Control to compensate if poor traction conditions are encountered and the machine does not track straight.



- Turn the dial to the right to apply more aggression to the right track. Turn the dial to the left to apply more aggression to the left track.

Speed Range

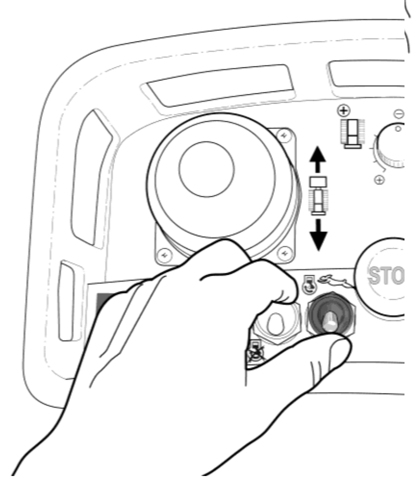


- Adjust the High / Low speed range of the machine depending on mowing conditions.
- Use Low Range for most cutting applications and maneuvers on slopes.
- Use the High Range for travel.

CAUTION!

Bring the machine to a complete stop before changing speed range. Damage to the drive system may otherwise result.

Machine Shutdown

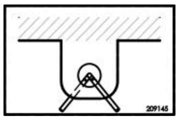


- Reduce engine speed to low idle.
- Disengage mower PTO.
- Run engine at low idle for 5–10 minutes to allow internal engine components to cool.
- Turn engine off.
- Remove debris from engine cooling inlet grill.
- Remove mud and debris from machine prior to shutdown.
- The electric cooling fan may start without notice and discharge dust, always protect your eyes with proper safety equipment.

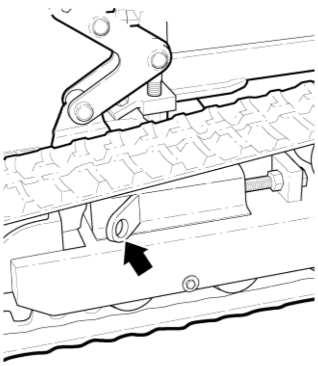
Transporting the Machine

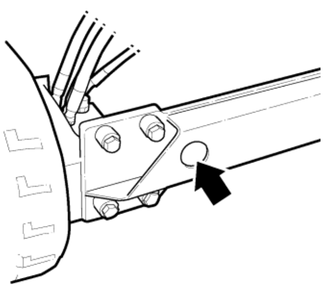
The machine is provided with tie down locations on the rear frame and the side of the track assemblies for transporting. Machine weight is 2640 lb.

Before transporting:

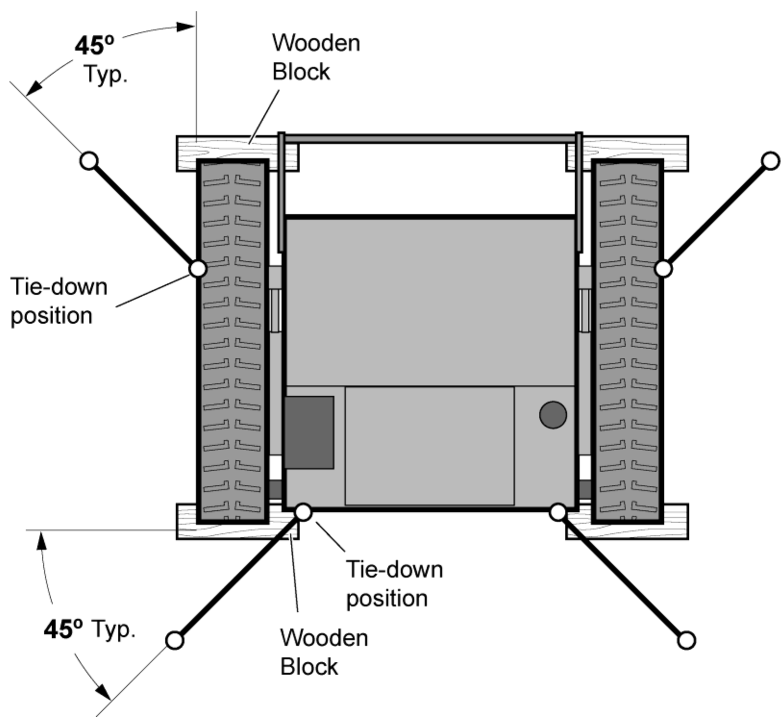


- Clean the machine removing any debris.
- Ensure hood is fully secured. Check to make sure there are no loose parts or tools on the machine or under the hood.
- Move machine onto transporting vehicle / trailer.
- Lower machine until it contacts the stops.
- Block machine and tie down to the locations shown.
- Place wooden blocks against the end of the tracks at one end of the machine.
- Place tie-down straps or chains in positions shown on this end of the machine at 45º angles from the machine frame.
- Block the other end of the machine.
- Place tie-down straps or chains at 45º angles as shown.



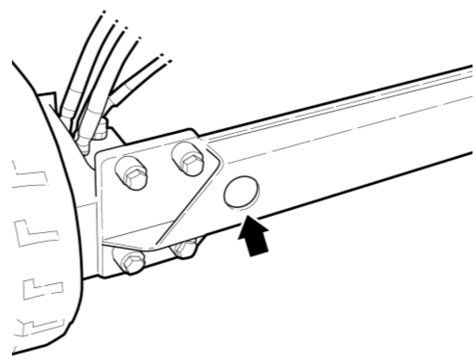


Tie-down Positions



Recovery

Holes are provided on the rear of the frame in the event it is necessary to tow the machine. The machine can only be towed at a slow speed over a short distance with the engine off and brakes released.

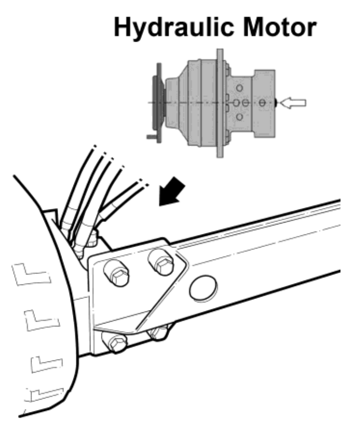


CAUTION!

Block the machine so it cannot move. Once the brakes are released there will be nothing holding the machine in place. Be especially careful on slopes.

CAUTION!

Tow the machine at SLOW speeds over SHORT distances only. Damage to the hydrostatic drive system may otherwise result. Tow the machine with the engine OFF and brakes released.

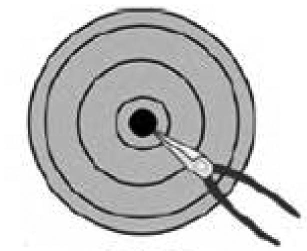


Spring applied brakes are built-into each hydraulic drive motor assembly. Whenever the engine is off, the brakes are automatically applied. If the engine will not start and towing is necessary, the brakes must be manually released.

A hydraulic wheel motor is located on each side to drive the track. The brakes inside of each wheel motor are applied when there is a lack of hydraulic oil pressure. In an emergency situation, the brakes can be manually released.

DANGER!

Do not operate machine with the brakes released.

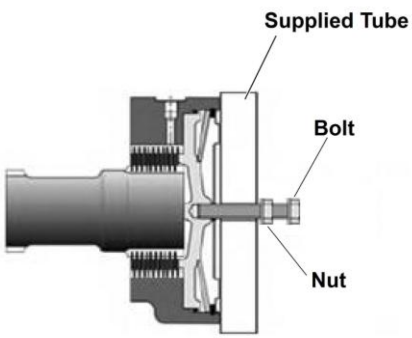


Manually Release Brakes
Follow this procedure for both sides of the machine.

- Remove the rubber plug from the brake protector.
- Loosen the locknut.

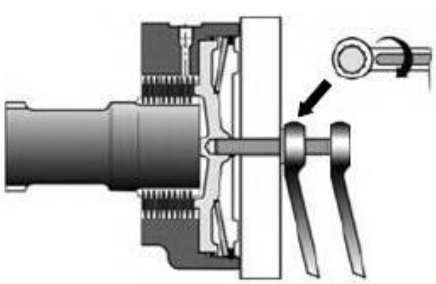
Note:

The tube, bolt and nut required to release the brakes were shipped loose with the machine.



Position the supplied tube with the hole centered over the brake access hole. Insert the supplied bolt / nut through the hole in the tube into the brake housing.

Finger-tighten the bolt until it reaches the bottom of the threads. Do not over-tighten.



Tighten the nut while holding the bolt preventing it from turning. As the nut is tightened the brake is released, continue tightening the nut until the motor turns freely. The brake on that side of the machine is released. Repeat on the other side of the machine.

Reverse the above procedure to put each motor back into service prior to operating the machine.

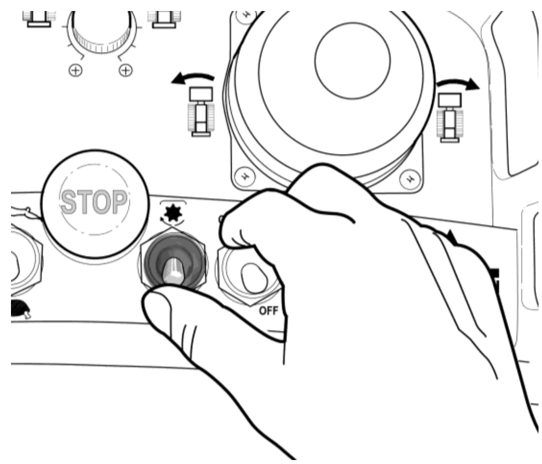
NOTE: Install a new rubber plug on re-assembly.

Mowing

⚠ WARNING!

Keep all bystanders well away from the machine when it is operating. Always maintain a safe operating distance between personnel and other equipment.
Carefully walk the entire area to be mowed beforehand. Look for debris, rocks, tree limbs that could damage or be thrown by the mower blades. Tall grass can hide obstacles. Use extra caution when approaching blind corners, shrubs, trees, or other objects that could obscure vision. Reposition yourself to avoid these conditions.
Disengage the blades (PTO) when crossing gravel areas or roadways.

Engaging / Disengaging Blades (PTO)



⚠ CAUTION!

Ensure engine speed is at low idle when engaging PTO. Failure to do so will result in premature component failure.

⚠ CAUTION!

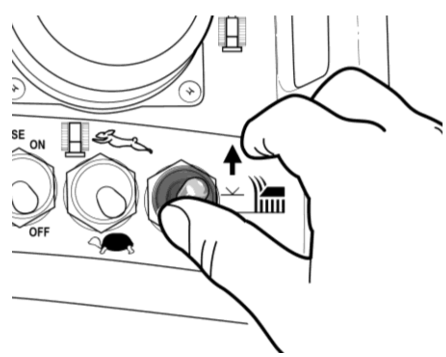
If mowing tall grass, fully raise deck or move to an area with lower grass before engaging PTO to avoid overloading clutch.

- With the engine at low idle speed, push the PTO on/off toggle switch forward to engage the PTO.
- With the engine at low idle speed, pull the PTO on/off switch rearward to disengage the PTO.

Cut Height Adjustment

The deck height is fully adjustable from 2.25–8 inches.

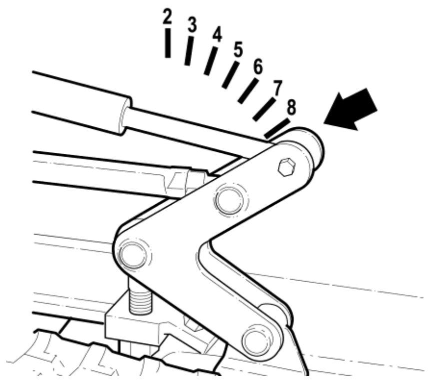
- Push the deck raise / lower toggle switch on the remote control forward to raise the deck height. Pull the switch rearward to lower the deck. The deck can be raised or lowered while the machine is moving.
- Observe the height indicator on the side of the machine.



High grass and weed area inspection

- **Inspect** and **remove** any hidden large debris.
- **Mow** at an **intermediate** height.
- **Inspect** and **remove** remaining debris.
- **Mow** at final height.

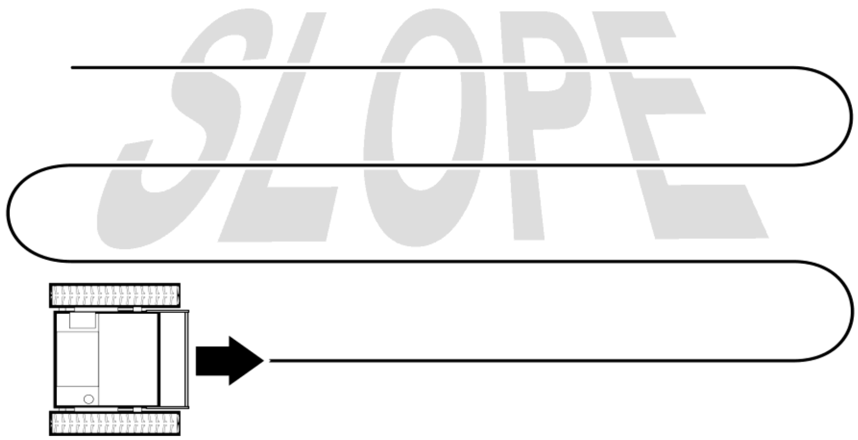
Mower Deck Height



NOTE: An audible 'clicking' sound will be heard when the actuators are at the end of their stops. Release the deck raise / lower switch.

Slope Work

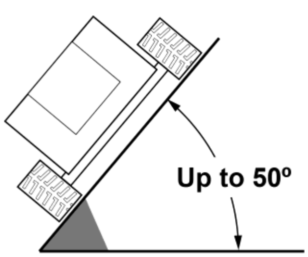
The preferred cutting direction on slopes is to cut along the slope and not up and down. Mowing in this manner could also help reduce erosion.



Degrees	Slope	Grade
50º	0.84 to 1	120%
45º	1 to 1	100%
26.6º	2 to 1	50%
18.4º	3 to 1	33%

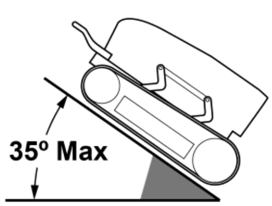
WARNING!

Never position yourself up or down slope from the machine or in the direction of travel. Falling into a running machine can cause severe injury or death.



The machine can be safely operated on slopes ranging up to 50º. As a guide, a 50º slope would be extremely difficult to walk up, depending on surface and traction conditions.

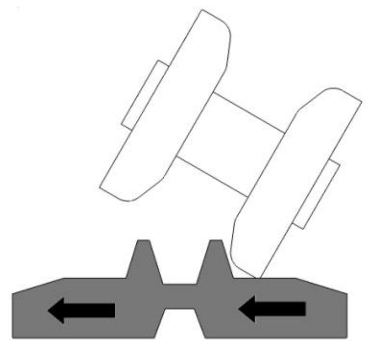
If cutting up and down the slope is necessary, limit mowing to slopes less than 35º. As a guide, a 35º slope is moderately difficult to walk up.



The machine is provided with a slope meter on the rear left-hand side of the machine for reference.

- Use caution when approaching the machine, always turn off the machine blades and approach from a safe direction, never from directly above or below the machine.
- Always use caution when operating in hilly terrain, when there are changing ground conditions, including dry to wet surfaces or operating over mowed surfaces, as all may have reduced traction.

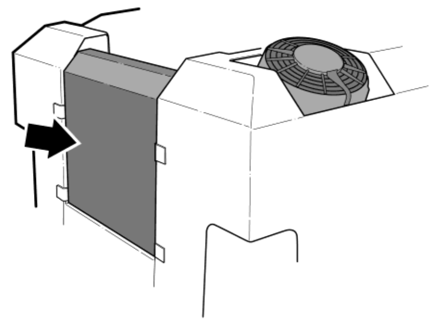
Track Precautions



In certain operating conditions, there is a risk that the track could be damaged or 'jump' out of position requiring the track be reinstalled.

To minimized this occurance, always ensure proper track tension, refer to page 40. Minimize turns in reverse, turning while maneuvering across obstacles or if the edge of a track is against an inmovable object. If unavoidable proceed slowly until clear of the object. Frequently inspect track condition when it is safe to do so.

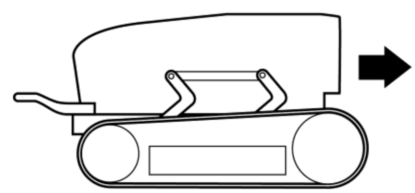
Dusty / Dry Conditions



If mowing in dry, dusty conditions, there may be some debris build-up on the rear screen and or engine compartment. Do not allow debris etc. to build up. This debris by itself may not cause a fire; however, when mixed with fuel, oil, or grease in a hot or confined space, the danger of fire increases dramatically.

CAUTION!

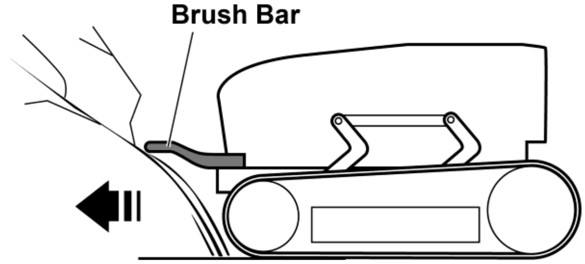
Do not allow the rear screen to get covered or plugged with debris. The engine will overheat. Keep the screen clean. Be aware of hot surfaces.



If necessary, run the machine in the opposite direction to help avoid debris buildup.

Brush Cutting

The machine can be used to cut small sapling trees. The brush bar at the front of the machine will push them over as is it passes.



For brush cutting:

- Change mower blades to Brush Cutter (swing back) blades.
- Run the machine in **WORKING** range speed.
- Do not cut brush larger than 3/4 in diameter.
- Once it is safe to do so, clean debris from blades and spindles after use.

WARNING!

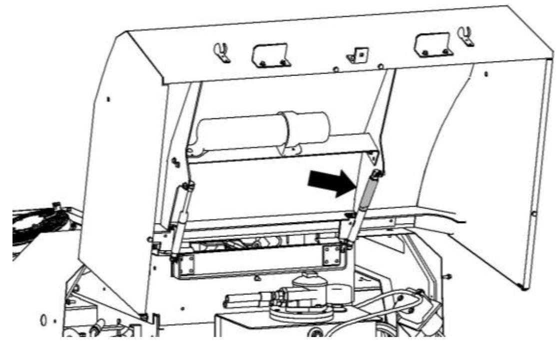
Mowers can throw objects 300 feet or more under adverse conditions.

To avoid serious injury or death to operator of bystanders from thrown objects:
- Keep bystanders 300 feet away

Maintenance

Maintenance should always be performed by a qualified service technician familiar with servicing similar equipment, using good safety and workmanship practices.

Always observe proper lock-out procedures when performing any maintenance work. Always remove and retain the ignition switch key, block and or support machine using equipment designed for the task. Be aware of hot areas and ensure the hood strut lock is functioning properly and can adequately hold open the hood.



Recommended Fluids

Component	Oil Grade	Recommended Viscosity at Ambient Temperatures
		°F -40 -22 -4 +14 +32 +50 +68 +86 +104 +122 °C -40 -30 -20 -10 0 +10 +20 +30 +40 +50
Engine	**Engine Oil** **API Classification** SJ or higher	SAE 10W-30 SAE 30 SAE 5W-30
Hydraulic System	**Hydraulic Oil** Premium Quality HVI (High Viscosity Index)	ISO HVI 32 ISO HVI 46 ISO HVI 68
Gearbox	**Gear Oil** **API GL-5**	SAE 80W90
Grease Fittings	**Multi-purpose Grease** MPG	NLGI EP0 or EP1 NLGI EP2

Daily Pre-Start Check List

Refer to the relevant sections of this manual for detailed instructions

- ☐ Ensure Operator's Manual is stored within manual container on machine
- ☐ Verify that all safety decals are legible
- ☐ Ensure the horn is operational
- ☐ Check engine oil level
- ☐ Check fuel level and tank security (both)
- ☐ Check cooling area
- ☐ Check air cleaner and connections
- ☐ Check drive belts
- ☐ Check for any remove any debris
- ☐ Check hydraulic tank level or for signs of leakage
- ☐ Check tracks
- ☐ Check height adjustment
- ☐ Verify mower blades, spindles are in good condition and properly secured
- ☐ Verify that PTO clutch functions correctly
- ☐ Hoods and guards are in good condition and in place
- ☐ Check all fasteners

Oil Disposal

Protect and respect the environment. Dispose of used oil and filters at your local recycling center or municipal collection center in accordance with local regulations.

Service Interval Chart

Always perform the following procedures as required when either elapsed hours of use or calendar time (whichever comes first) has been reached to determine service intervals. Before each consecutive service interval is performed, all maintenance from the previous interval must be performed.

Service Procedure	Interval						
	Initial Run-In 4h	50h / Weekly	100h	200h / Yearly	300h / Yearly	600h	1500h / Yearly
Check oil levels	X	-	-	-	-	-	-
Check air intake and cooling areas; clean as necessary	-	-	-	-	-	-	-
Check air cleaner element[2]	-	X[1]	-	-	-	-	-
Grease PTO bearings	-	X	-	-	-	-	-
Check track tension	X	X	-	-	-	-	-
Change engine oil[2]	-	-	X[1]	-	-	-	-
Remove and clean engine shrouds and cooling areas[2]	-	-	X[1]	-	-	-	-
Clean and inspect engine oil cooler[2] & Hydraulic oil Cooler	-	-	X[1]	-	-	-	-
Check drive belt tensions: pump drive / PTO drive / mower drive	X	-	X	-	-	-	-
Check Spindle condition	-	-	X	-	-	-	-
Replace engine oil filter[2]	-	-	-	X[1]	-	-	-
Replace fuel filter[2]	-	-	-	X[1]	-	-	-
Clean, set gap or replace spark plugs, and set gap[2]	-	-	-	X	-	-	-
Replace engine air cleaner element and check inner element[2]	-	-	-	-	X[1]	-	-
Replace engine air cleaner inner element[2]	-	-	-	-	-	X[1]	-
Change Hydraulic oil / filter	-	-	-	-	-	-	X[1]
Change gearbox oil	X	-	-	-	-	-	X[1]

1 Perform procedures more frequently under extremely dusty/dirty conditions

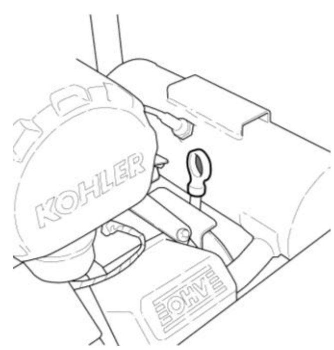
2 Refer to engine manual for details

4 Hours - Initial Run-In

Check engine oil.

WARNING!

Be careful when checking oil. Hot oil can burn unprotected skin.





Check Track Tension

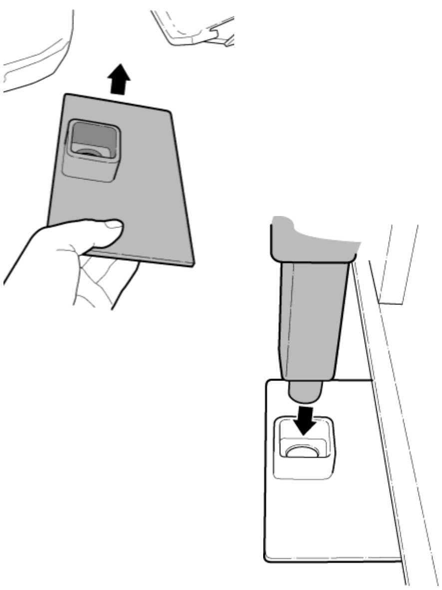
A properly adjusted track has 1/4 in of slack in it. Remove excess slack with the track tension adjuster. In order to properly measure slack, the track must be lifted off the ground. Lift each track up using the Jacking Procedure.

Jacking Procedure
The machine can be raised up off the ground using the included jack stands and the deck raise / lower assembly.

Jacking the machine is useful for measuring track tension or general track maintenance and cleaning.

Four jack posts are mounted on the machine frame – one in each corner.

NOTE! Use the jack stands in pairs, either on one side, or both sides. Do not use to lift only the front or the rear.



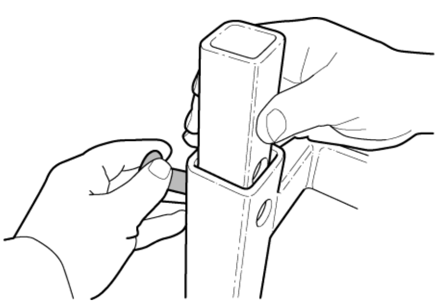
WARNING!

Perform jacking procedure on level ground with the engine off. Personal injury may otherwise result.

If possible, start with the mower deck raised to the highest possible cutting height. This can be accomplished without running the engine. Establish communications between the remote control and the machine – do not start the engine.

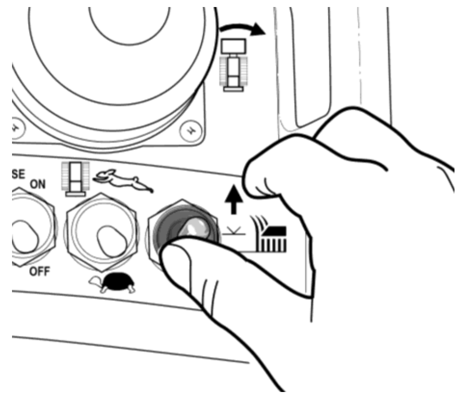
Insert a foot plate under each jack position on the side of the machine to be raised. Block the track on the opposite side of the machine.

Insert a jack leg into each tube on the machine frame. Position them at the lowest position.



Insert the pins through the machine frame and jack tube; secure the pins in the tube with the clip.

Turn on the ignition switch on the console.



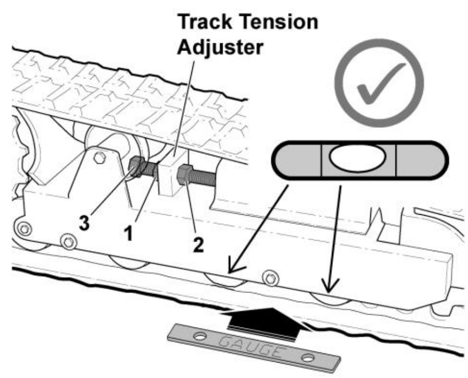
After communication has been established, do not start the engine. Use the mower deck raise/lower switch on the remote control to lower the machine which will raise the track(s) as the machine is supported on the jack stands.

Stop when the actuators are at the end of their stops. An audible 'clicking' sound will be heard.

Reverse this procedure to lower the track(s) to the ground.

Track Tension Adjustment

IMPORTANT! Roller pivot must be level for proper measurement. Keep track tension equal on both sides of the machine.

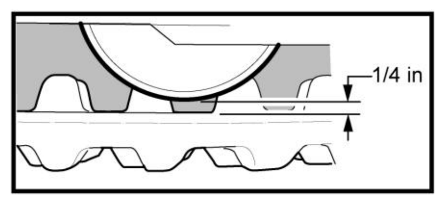


Jack one side of the machine up at a time using the procedure outlined on page 40 - 41.

Loosen the jam nut (1) with a 1½ in wrench.

Hold the 1½ in tension nut (2) with the wrench.

Rotate the adjuster (3) with a 1½ in socket. Rotate clockwise to tighten; rotate counter-clockwise to loosen. Adjust the track so that there is ¼ in slack between the track and roller. Use the plate that secures the jack stands as a convenient ¼ in thick gauge.



Tighten jam nut (1), do not let adjuster (3) rotate as the jam nut is tightened.

Also check roller condition. Look for bearing wear or looseness.

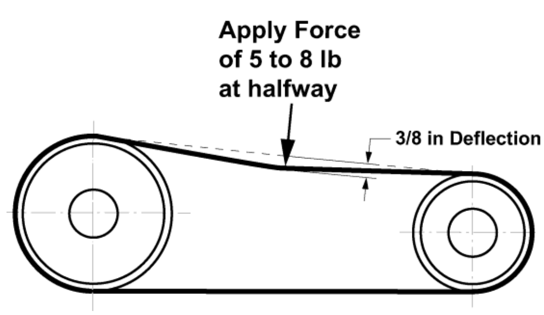
Note:
Refer to a qualified service technician if the track must be removed.

Check Drive Belt Tension

Proper belt tensioning is a fundamental factor in successful V-belt life.

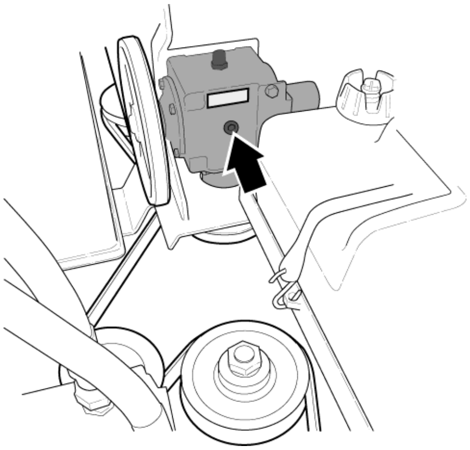
Lack of tension will cause slippage, and too much tension will cause excessive belt stretch as well as damage to the drive components, such as bearings and shafts. Therefore, the following procedure is recommended to ensure proper belt tension:

- At the mid-point of the span, apply a deflection force with a spring scale in the direction perpendicular to the span until the belt is deflected the 3/8 in.
- The recommended force to deflect the belt 3/8 of an inch is a minimum of 5 lb to a maximum of 8 lb. Adjust belt tension to suit.
- The first 24 to 48 hours of operation is the belt "run in" period. To ensure satisfactory belt performance, belt tension should be checked during this time period.



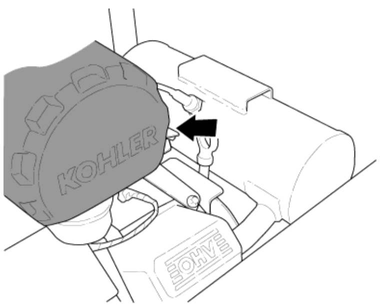
Refer to the following pages for drive belt adjustment procedures.

Always check for mis-aligned or damaged pulleys.



Change gearbox oil – initial run-in

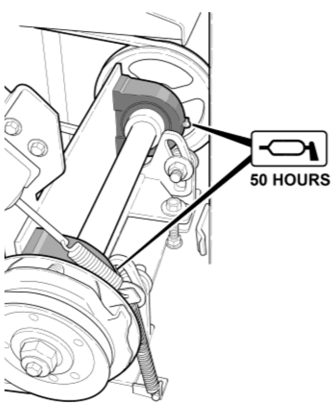
- Change gearbox oil when warmed to operating temperature.
- Thoroughly flush gearbox with a cleaning oil and refill. Refer to page 46 for oil change procedure.



50 Hour / Weekly Interval

Check Air Filter Precleaner

Change precleaner more frequently in dusty conditions.
Refer to engine manual for further information.

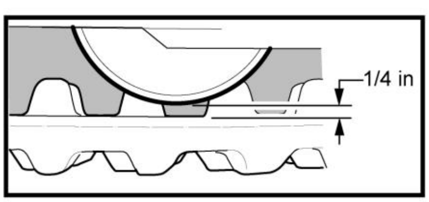


Grease PTO Bearings

There are only two grease fittings on the machine. These are found on the main drive shaft bearings. All other shaft bearings do not require greasing.

- Grease main drive shaft bearings every 50 hours. Pump 3–5 shots each with a standard manually operated grease gun.
- Power assisted grease gun is NOT recommended
- Use NLGI grade 2 General Purpose Grease only.

IMPORTANT! Do not over grease. Forcing grease into the bearings will damage the seals.



Check Track Tension

A properly adjusted track has 1/4 in of slack in it. Remove excess slack with the track tension adjuster. In order to properly measure slack, the track must be lifted off the ground. Lift each track up using the Jacking Procedure.

See page 40.

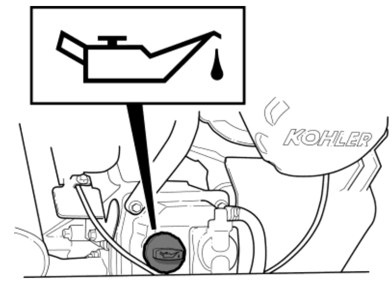
100 Hour Interval

Change engine oil.

WARNING!

Be careful when changing oil. Hot oil can burn unprotected skin.

- Engine oil capacity is 2 US qt (2 l).
- Refer to engine manual for procedure.



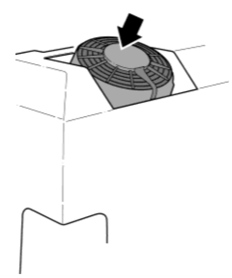
Recommended engine oil

Factory fill oil is SAE30 used for engine break-in.

Recommended engine oil is AMSOIL Formula 4-stroke 10W30 / SAE 30 small engine oil.

Remove and Clean Engine Shrouds

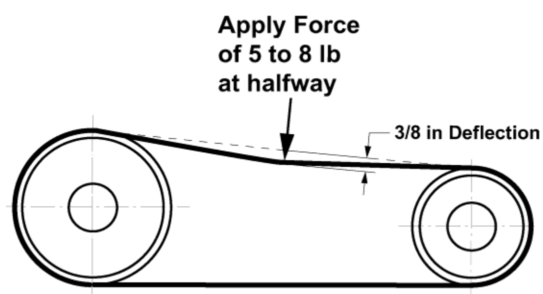
- Refer to the Engine Manual for details
- Clean debris from these areas



Clean/inspect engine and hydraulic oil cooler

- Clean debris from these areas.
- Check for oil leaks.

Check Drive Belt Tension

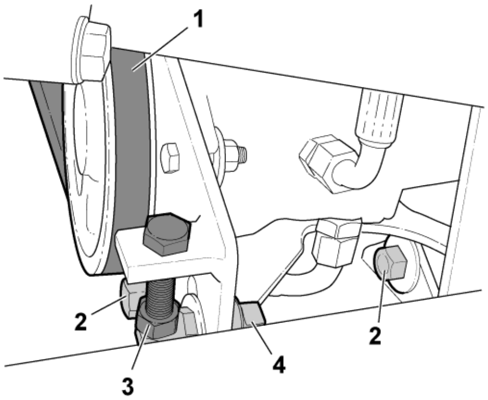


Proper belt tensioning is a fundamental factor in successful V-belt life.

Lack of tension will cause slippage, and too much tension will cause excessive belt stretch as well as damage to the drive components, such as bearings and shafts. Therefore, the following procedure is recommended to ensure proper belt tension:

- At the mid-point of the span, apply a deflection force with a spring scale in the direction perpendicular to the span until the belt is deflected the 3/8 in.
- The recommended force to deflect the belt 3/8 of an inch is a minimum of 5 lb to a maximum of 8 lb. Adjust belt tension to suit.
- The first 24 to 48 hours of operation is the belt "run in" period. To ensure satisfactory belt performance, belt tension should be checked during this time period.

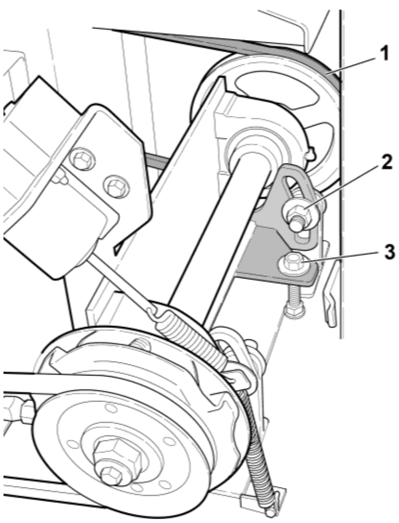
Refer to the following pages for drive belt adjustment procedures.



Adjust Drive Belt Tension – Pump Drive

Access this drive belt (1) by removing the cover on the right-hand side of the machine.

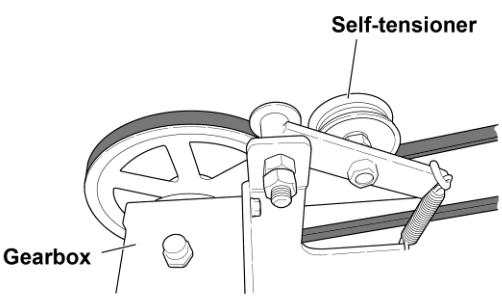
- Ensure the engine is off and the machine is blocked to prevent movement.
- Loosen the pivot bolts (2).
- Loosen lock nut (4) and remove belt slack by adjusting hex nut (3).
- Tighten locknut (4), then the pivot bolts (2).



Adjust Drive Belt Tension – PTO Drive

Access this drive belt (1) under the hood on the left-hand side of the machine.

- Ensure the engine is off and the machine is blocked to prevent movement.
- Loosen securing bolt (2).
- Loosen lock nut and remove belt slack by adjusting hex nut (3).
- Tighten securing bolt.



Gearbox Drive Belt Tension

The gearbox drive belt has a self-tensioner and requires no adjustment.

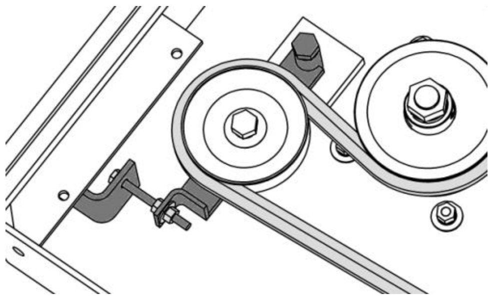
Ensure tensioner arm moves freely, tensioner pulley is aligned with belt and tensioner spring is in good condition.

Adjust Mower Drive Belt Tension

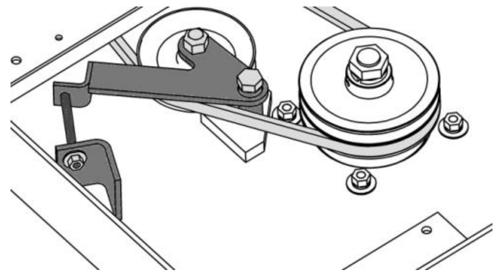
There are 2 drive belts. Remove fuel tanks to access belt tension adjustments.

- Ensure the engine is off and the machine is blocked to prevent movement.

See Check Drive Belt Tension on preceding page for proper tension



Right hand mower drive belt adjustment

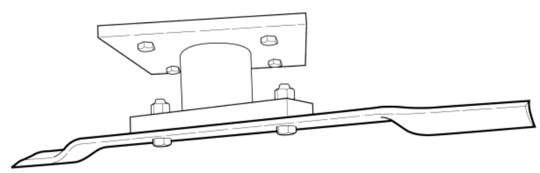


Left hand mower drive belt adjustment

Spindle Inspection

Spindles are equipped with maintenance free roller bearings. Inspect blade spindles by first loosening the two mower blade drive belts. Wearing protective gloves, and one at a time, grasp each blade and attempt to move it from side to side. If any free play is noted, it is necessary to have the spindle serviced by a qualified technician.

NOTE: Spindle nut is left-hand thread. Nut torque is 60 ft•lb.



200 Hour / Monthly Interval

Change engine oil and filter

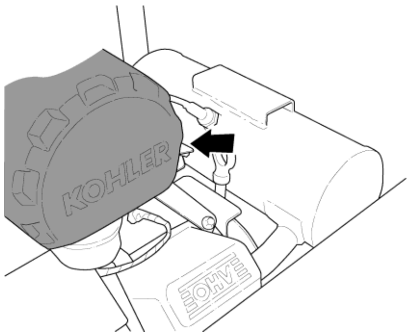
Refer to Engine Manual for procedures.
Recommended engine oil is AMSOIL Formula 4-stroke 10W30 / SAE 30 small engine oil.

Replace fuel filter

Refer to Engine Manual for procedure.

Spark Plugs

Clean, set gap or replace spark plugs.
Refer to the Engine Manual for procedures.



300 Hour / Yearly Interval

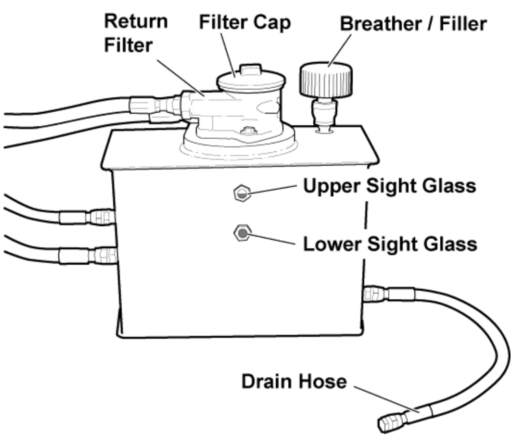
Replace engine air cleaner filter element.

Check inner filter element.

600 Hour Interval

Replace air cleaner inner filter element.

Hydraulic Oil Tank



1500 Hour / Yearly Interval

Change Hydraulic Oil / Filter

Hydraulic tank capacity is 6 gal US. Clean the tank surface prior to changing oil. Factory fill hydraulic oil is ISO HVI 46

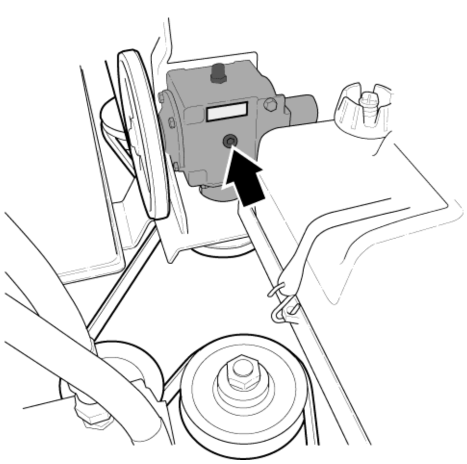
CAUTION!

When adding hydraulic oil, always pump new oil through a 10 micron absolute filter to ensure oil cleanliness.

- Use remote drain hose to drain oil into an approved container.
- Change return filter element.
- Pump new oil through a filter to refill tank. Refer to table on page 38 for proper oil.
- Refill so oil level is halfway on upper sight glass.
- After filling hydraulic system, start machine and operate in a safe location forward and back for a few moments. Shut off engine and recheck level. Adjust if required.

WARNING!

Be careful when changing oil. Hot oil can burn unprotected skin.

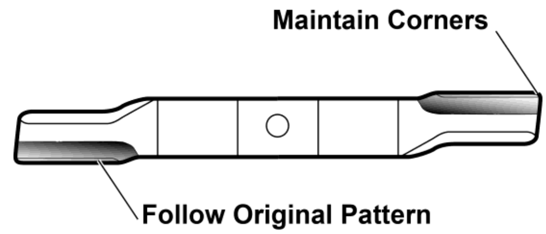


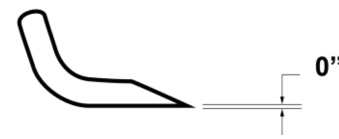
Change Oil in Gearbox

- Remove gearbox from machine to drain oil into an approved container. Oil is drained using side plug in casing and refilled through top plug.
- Refill to level where oil just starts to flow out of side hole. Use 80W90 gear oil or equivalent.
- Reinstall the gearbox. Make sure the gearbox serial number plate is facing the right-hand side of the machine.

As Required Maintenance

Sharpening / Balancing Blades

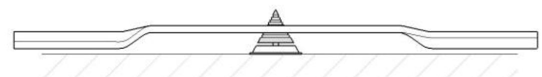




WARNING!

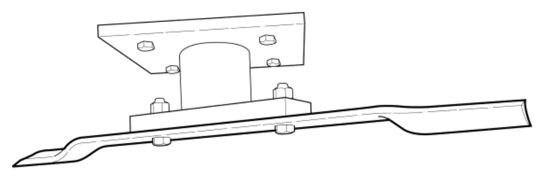
Use gloves when handling mower blades. Blades can be very sharp.
IMPORTANT! When sharpening blades, be sure material removed is equal on both sides of the blade. Unbalanced blades will cause excessive vibration leading to cracks in machine components.

- Clean all material from the blade prior to sharpening and balancing.
- Grind or file blades following original pattern as shown.
- Sharpen to a razor edge. Do not sharpen backside of blade.
- Use the supplied cone balancer to verify blade balance. When the blade is correctly balanced, the blade will remain horizontal.



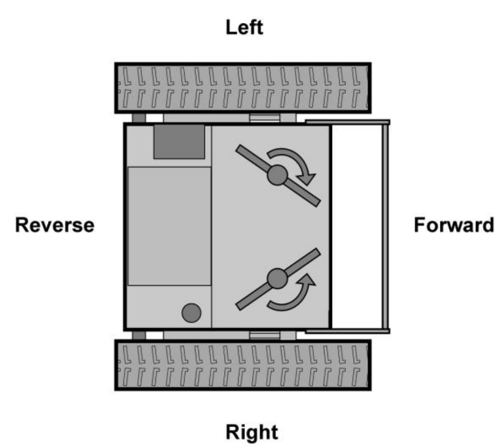
Changing Mower Blades

IMPORTANT! Only original equipment blades should be used when replacing worn out or damaged mower blades. They are made of special steel alloys and subjected to rigid heat-treat and inspection requirements.
Substitute blades may not meet these rigid specifications and MAY BE DANGEROUS.



Maintenance should always be performed by a qualified service technician familiar with servicing similar equipment, using good safety and workmanship practices.

Always observe proper lock-out procedures when performing any maintenance work including changing or servicing the blades. Always remove and retain the ignition switch key, block and or support machine using equipment designed for the task.

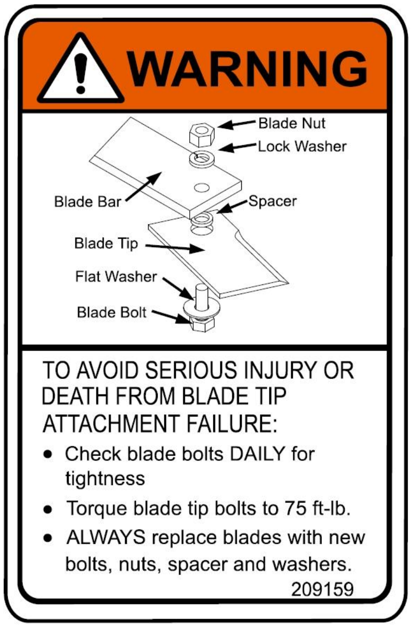


Replace any blade that is bent, excessively nicked, worn or has any other damage. Small nicks can be ground out when sharpening.

- When replacing mower blades, be aware of blade rotation as blades rotate in opposite directions. Ensure the cutting edge is facing in the correct direction
- When viewed from above and per machine orientation as identified on page 17, the left hand blade turns clockwise.
- When viewed from above and per machine orientation as identified on page 17, the right hand blade turns counter clockwise.

There are two styles of blades available:

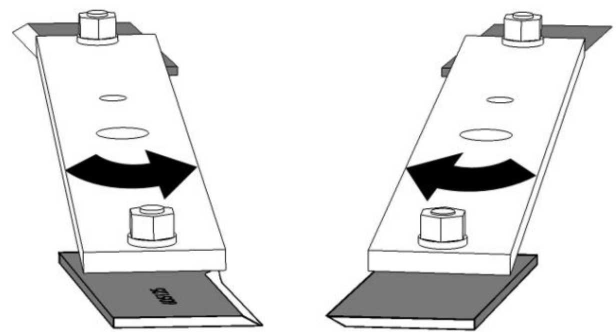
- The three piece, brush cutter blade with swing tips
- The one piece, mulching / grass blade
  - The left hand one piece blade is painted RED
  - The right hand one piece blade is painted BLACK



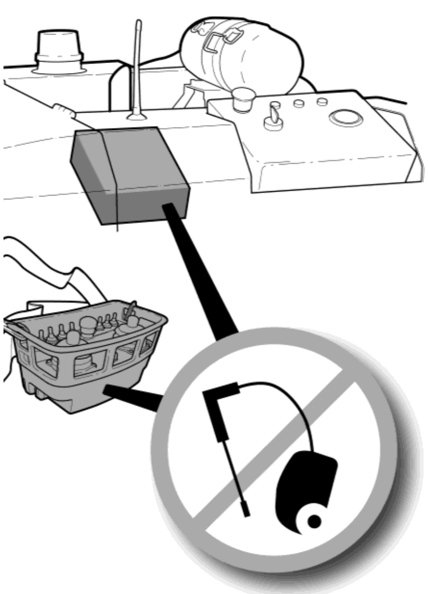
- Both blades use two 1/2 in X 1 3/4 lg. Grade 5 bolts with lock washers and nuts to hold blade to blade spindle support bar. When changing blades, be sure that these fasteners are in good condition and properly torqued to specification (85ft-lbs) so they will not come loose during operation.

Additionally, the brush cutter blade has replaceable blade tips that require additional inspection and service practices.

- Always check blade bolts daily for tightness
- Torque blade tip bolts to 75ft-lbs.
- Always replace in pairs to maintain balance.
- Due to the opposite rotation of the blades ensure the blade tips are installed so that the cutting edge is in the orientation shown
- Always use new bolts, nuts, spacers and washers



Blade rotation –
as viewed from the front



Cleaning

IMPORTANT! If using a power washer to clean the machine, be careful of electrical system components. Do not use a power washer on the control panel or the remote control. Damage to sensitive electronics could occur causing a system malfunction.

Warning decals are placed on the machine in these locations.

End of Season Maintenance / Long term Storage

It is important to prevent gum deposits from forming in the fuel system parts. Draining the fuel system or adding fuel stabilizer are the best methods.

To empty the engine fuel system, disconnect the fuel tanks, then start the engine and let it run. Use fresh fuel next season.

Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tanks. Always follow mix ratio stated on stabilizer container.

Run engine 10 minutes after adding stabilizer to allow it to flow through the entire fuel system. Do not empty the gas tank if using fuel stabilizer.

Remove the engine spark plugs and add one tablespoon of engine oil into the cylinders. Crank the engine 2 or 3 times with the plugs removed. Reinstall the plugs.

Fully inspect the machine for worn or broken parts. Replace as necessary. Grease the machine.

If possible, store the machine indoors. If not, place a suitable protective cover over the machine. Do not use a plastic cover. Plastic will cause condensation to form underneath it, which will cause rust.

Troubleshooting Guide

For problems specific to the engine or the remote control, refer to the user manual for that component included with the manual set.

Machine Drive Belts and Spindles

Problem	Cause	Remedy
Belt Slippage	– Improper belt tension	– Adjust tension – Ensure proper OEM belts are used.
	– Oily belt drive	– Clean up drive
Rapid Belt Wear	– Belt slippage – Belt not located properly in groove	– Increase belt tension – Place belt properly in groove. – Ensure proper OEM belts are used.
Belt Squeal	– Belt Slippage	– Increase belt tension – Ensure proper OEM belts are used.
Overheated spindle bearings	– Belt Slippage – Excessive belt tension – Worn bearings	– Increase belt tension – Set belt tension properly – Replace bearings

Hydraulic System

With the engine shut off, check for evidence of external oil leakage around seals, housings, or hose connections. Also check for pinched or kinked hoses and steel lines that could restrict oil flow and cause excessive heat build-up in the hydraulic oil.

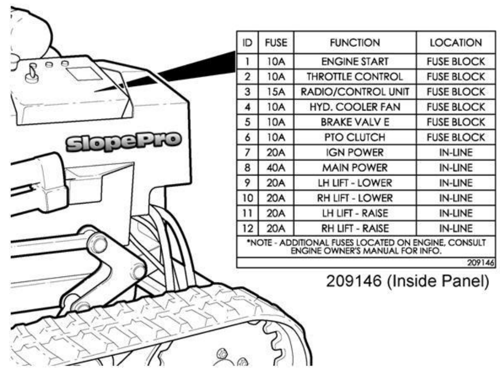
Check hydraulic oil level in reservoir and add the correct amount and type of hydraulic oil, if necessary.

Check the quality of the oil; change if milky, dirty or discolored. Also smell the oil. A burnt odor indicates excessive heat that will destroy the lubricating qualities of the oil. Again, the oil should be changed if this condition is found. Determine the cause of the excessive heat and correct it.

Determine if the return filter is plugged or damaged. A filter that has failed will permit oil to bypass the system, affecting system operation and tests. If the filter is plugged, examine the contamination to determine what may have caused the failure.

Electrical System

Relays – if fuses are ok, replace suspect relay with a known working relay to test.
Never replace a damaged fuse with a fuse of a higher or lower current value.



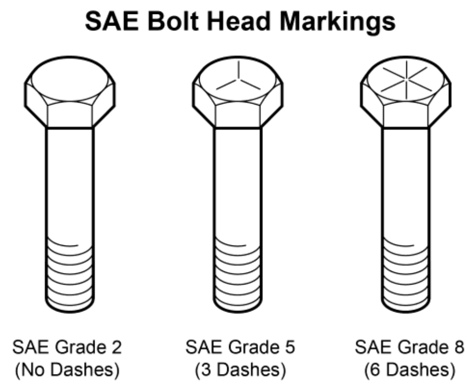
ID	FUSE	FUNCTION	LOCATION
1	10A	ENGINE START	FUSE BLOCK
2	10A	THROTTLE CONTROL	FUSE BLOCK
3	15A	RADIO/CONTROL UNIT	FUSE BLOCK
4	10A	HYD. COOLER FAN	FUSE BLOCK
5	10A	BRAKE VALV E	FUSE BLOCK
6	10A	PTO CLUTCH	FUSE BLOCK
7	20A	IGN POWER	IN-LINE
8	40A	MAIN POWER	IN-LINE
9	20A	LH LIFT - LOWER	IN-LINE
10	20A	RH LIFT - LOWER	IN-LINE
11	20A	LH LIFT - RAISE	IN-LINE
12	20A	RH LIFT - RAISE	IN-LINE

*NOTE - ADDITIONAL FUSES LOCATED ON ENGINE, CONSULT ENGINE OWNER'S MANUAL FOR INFO.

209146

209146 (Inside Panel)

Torque for Fasteners



The table lists the correct tightening torque for fasteners on the machine, unless otherwise stated elsewhere. When bolts are to be tightened or replaced, refer to this chart to determine the proper torque except when specific torque values are assigned in the manual. Only SAE grade 5 fasteners are to be used in the assembly of this machine, or as otherwise specified in this manual.

Recommended Torque Value

Values shown in Ft•lb (Nm)

Bolt Diameter (inches)	SAE Grade 5
5/16	21 (28)
3/8	38 (52)
7/16	55 (75)
1/2	85 (115)
9/16	125 (170)
5/8	175 (240)
3/4	300 (410)
7/8	450 (610)
1	680 (925)
1 in Spindle Nut	60 (82)
Swing Blade Tip bolt	75 (100)

TIGER CORPORATION
LIMITED WARRANTY POLICY

1. LIMITED WARRANTIES.

1.01. Tiger Corporation ("Manufacturer") warrants for one year from the purchase date to the original non-commercial, governmental, or municipal purchaser or for six months to the original commercial or industrial purchaser ("Purchaser" as applicable) that the goods purchased are free from defects in material or workmanship.

1.02. Manufacturer will replace for the Purchaser any part or parts found, upon examination at one of its factories, to be defective under normal use and service due to defects in material or workmanship during the applicable warranty period.

1.03. This limited warranty does not apply to any part of the goods which has been subjected to improper or abnormal use, negligence, alteration, modification, or accident, damaged due to lack of maintenance or use of wrong fuel, oil, or lubricants, or which has served its normal life. This limited warranty does not apply to any part of any internal combustion engine, or expendable items such as blades, shields, guards, or pneumatic tires.

1.04. No employee, agent, Dealer, or other person is authorized to give any warranties of any nature on behalf of Manufacturer.

1.05. All warranty may be void if parts other than OEM Tiger parts are used on equipment

2. REMEDIES AND PROCEDURES.

2.01. This limited warranty is not effective unless the Purchaser returns the Registration and Warranty Form to Manufacturer within 30 days of purchase.

2.02. Purchaser claims must be made in writing to the Authorized Dealer ("Dealer") from whom Purchaser purchased the goods or an approved Authorized Dealer ("Dealer") within 30 days after Purchaser learns of the facts on which the claim is based.

2.03. Purchaser is responsible for returning the goods in question to the Dealer

2.04. If after examining the goods and/or parts in question, Manufacturer finds them to be defective under normal use and service due to defects in material or workmanship, Manufacturer will:

(a) Repair or replace the defective goods or part(s) or

(b) Reimburse Purchaser for the cost of the part(s) and reasonable labor charges (as determined by Manufacturer) if Purchaser paid for the repair and/or replacement prior to the final determination of applicability of the warranty by Manufacturer.

The choice of remedy shall belong to Manufacturer

2.05. Purchaser is responsible for any labor charges exceeding a reasonable amount as determined by Manufacturer and for returning the goods to the Dealer, whether or not the claim is approved. Purchaser is responsible for the transportation cost for the goods or part(s) from the Dealer to the designated factory.

3. LIMITATION OF LIABILITY

3.01. MANUFACTURER DISCLAIMS ANY EXPRESS (EXCEPT AS SET FORTH HEREIN) AND IMPLIED WARRANTIES WITH RESPECT TO THE GOODS INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

3.02. MANUFACTURER MAKES NO WARRANTY AS TO THE DESIGN, CAPABILITY, CAPACITY, OR SUITABILITY FOR USE OF THE GOODS.

3.03. EXCEPT AS PROVIDED HEREIN, MANUFACTURER SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO PURCHASER OR ANOTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS, OR DAMAGE CAUSED OR ALLEGED TO BE CAUSED DIRECTLY OR INDIRECTLY BY THE GOODS INCLUDING, BUT NOT LIMITED TO, ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES RESULTING FROM THE USE OR OPERATION OF THE GOODS OR ANY BREACH OF THIS WARRANTY. NOT WITHSTANDING THE ABOVE LIMITATIONS AND WARRANTIES, MANUFACTURER'S LIABILITY HEREUNDER FOR DAMAGES INCURRED BY PURCHASER OR OTHERS SHALL NOT EXCEED THE PRICE OF THE GOODS.

3.04. NO ACTION ARISING OUT OF ANY CLAIMED BREACH OF THIS WARRANTY OR TRANSACTIONS UNDER THIS WARRANTY MAY BE BROUGHT MORE THAN TWO (2) YEARS AFTER THE CAUSE OF ACTION HAS OCCURRED.

4. MISCELLANEOUS

4.01. Proper Venue for any lawsuits arising from or related to this limited warranty shall be only in Minnehaha County, South Dakota.

4.02. Manufacturer may waive compliance with any of the terms of this limited warranty, but no waiver of any terms shall be deemed to be a waiver of that term in the future or of any other term.

4.03. If any provision of this limited warranty shall violate any applicable law and is held to be unenforceable, then the invalidity of such provision shall not invalidate any other provisions herein.

4.04. Applicable law may provide rights and benefits to purchaser in addition to those provided herein.

KEEP FOR YOUR RECORDS

ATTENTION: Purchaser should fill in the blanks below for his reference when buying repair parts and/or for proper machine identification when applying for warranty.

Tiger Corporation Implement Model ________________________________ Serial Number________________________________

Date Purchased ____ Dealer ____

ATTENTION: READ YOUR OPERATOR'S MANUAL

DAILY PRE-OPERATION INSPECTION CHECKLIST

MOWER ID#	OPERATOR
DATE	SHIFT

WARNING!

Machine is operated by remote control and can remain functional beyond the recommended maximum 300 foot operating range. It is the Operator’s responsibility to control the machine in a safe manner.



BEFORE OPERATING THIS MACHINE

Check that the Operator’s Manual is located in the manual container and is in good condition. Contact your dealer immediately if you do not have an Operator’s Manual

Carefully read the Operator’s Manual, completely understand the Safety Messages and instructions, and know how to correctly operate this machine. Contact your dealer to obtain and explanation of any instruction not fully understood.

Wear Personal Protective Equipment (PPE) – know how to use the protective equipment when operating the machine. Hard hats, protective glasses and face shields, protective shoes, gloves, reflector type vests, and ear protection are types of equipment that may be required.

- ☐ Operate the machine only when physically fit and not under the influence of alcohol or drugs
- ☐ Operate this machine only if you have read and understood the warning and operating instructions found in the machines Operator’s Manual
- ☐ Ensure you are properly trained to operate the machine
- ☐ Ensure you are familiar with all controls and emergency stopping procedures
- ☐ Verify you have all the required Personal Protective Equipment and know how to use them
- ☐ Ensure you are familiar with and follow all local regulations at the worksite, pertaining to the operation of this equipment

Refer to the relevant sections of this manual for detailed instructions.

OPERATOR’S SIGNATURE___________________________________

This Pre-Operation Inspection form may be duplicated for extra copies.

DAILY PRE-OPERATION INSPECTION CHECKLIST

MOWER ID#	PERFORMED BY Supervisor Operator
DATE	SHIFT

WARNING!

Before conducting the inspection, always observe proper lock-out procedures when performing any maintenance work. Always remove and retain the ignition key, block and or support machine using equipment designed for the task. Be aware of hot areas and ensure the hood strut lock is functioning properly and can adequately hold open the hood.

Pre-Start Checks Prior to Operating	Condition at Start of Shift	Specific Comments if not O.K.
Ensure Operator's Manual is stored within manual container on machine		
Verify that all safety decals are legible		
Ensure the horn is operational		
Check engine oil level – on level ground		
Check fuel level and tank security (both)		
Check cooling area		
Check air cleaner and connections		
Check drive belts		
Check for and remove any debris		
Check hydraulic tank level and for signs of leakage		
Check tracks for correct adjustment		
Check height adjustment		
Verify mower blades, spindles are in good condition and properly secured		
Hoods and guards are in good condition and in place		
Check all fasteners		

Functional Checks Prior To Operating

Ensure horn sounds when communication is established between remote control and machine		
Ensure emergency stops on remote control and machine operate properly		
Excessive tilt angle shut down functions on remote control		
Verify that flashing light illuminated when machine is in motion		
Verify that all operation controls function correctly		
Verify that PTO clutch functions correctly		

OPERATORS SIGNATURE___________________________________

DO NOT OPERATE AN UNSAFE MOWER

This Pre-Operation Inspection form may be duplicated for extra copies.

Slope Estimate Gage Instructions

To help estimate the angle of a slope align the thick black bar with a known vertical surface such as a building or utility pole. Fold the paper until the folded edge aligns with the slope. Estimate the slope from the gradients noted on the diagram. See page 36 for permissible operating slopes.

Degrees	Slope	Grade
50°	0.84 to 1	120%
45°	1 to 1	100%
26.6°	2 to 1	50%
18.4°	3 to 1	33%

